



Supplemental Regulatory Disclosure

For the Fourth Quarter Ended October 31, 2022

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Introduction

The information contained in this package is designed to facilitate the readers' understanding of the capital requirements of TD Bank Group ("TD" or the "Bank"). This information should be used in conjunction with the Bank's fourth quarter 2022 Earnings News Release, Investor Presentation, and the Supplemental Financial Information package, as well as the Bank's 2022 Annual Report. For Basel-related terms and acronyms used in this package, refer to the "Glossary – Basel" and "Acronyms" pages, respectively.

How the Bank Reports

The Bank prepares its Consolidated Financial Statements in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board, the current generally accepted accounting principles, and refers to results prepared in accordance with IFRS as "reported" results. Certain comparative amounts have been revised to conform with the presentation adopted in the current period.

Information reported in the Supplemental Regulatory Disclosure are prepared in accordance with the Office of the Superintendent of Financial Institutions Canada's (OSFI's) Capital Adequacy Requirements, Leverage Requirements and Total Loss Absorbing Capacity (TLAC) guidelines. In addition, the disclosures are prepared in accordance with the Pillar 3, Capital Disclosure, Leverage Ratio Disclosure Requirements, and TLAC Disclosure Requirement guidelines.

As noted in the Pillar 3 disclosure Index on the following pages, the disclosures are grouped by topic. Of note, Credit Risk consists of credit risk exposures excluding counterparty credit risk (CCR) and includes drawn, undrawn and other off-balance sheet exposures whereas CCR includes repo-style transactions and derivative exposures. The glossary provides additional details of items included in these exposure types.

Risk-weighted assets (RWA) disclosed in each disclosure include the 6% OSFI prescribed scaling factor, where applicable.

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Pillar 3 Disclosure Requirements – In January 2015, the Basel Committee on Banking Supervision (BCBS) published the standard for the *Revised Pillar 3 Disclosure Requirements* (Revised Basel Pillar 3 standard). The Revised Basel Pillar 3 standard aim to address the problems identified through the financial crisis and to improve comparability and consistency of financial regulatory disclosures through more standardized formats between banks and across jurisdictions. Furthermore, OSFI issued the Pillar 3 Disclosure Requirements guideline April 2017, effective October 31, 2018. The index below includes disclosure requirement per the BCBS document (and required by OSFI) and lists the location of the related disclosures presented in the fourth quarter 2022, Report to Shareholders (RTS), or Supplemental Financial Information (SFI), or Supplemental Regulatory Disclosures (SRD). Information on TD's website, SFI, and SRD is not and should not be considered incorporated herein by reference into the 2022 Annual Report, Management's Discussion and Analysis, or the Consolidated Financial Statements.

Topic	Pillar 3 Disclosure Requirements	Frequency	Page		
			SFI Fourth Quarter 2022	SRD Fourth Quarter 2022	Annual Report 2022
Overview of risk management	OVA – Bank risk management approach.	Annual			16, 64, 71-83, 90, 107
	OV1 – Overview of RWA.	Quarterly		10	
Linkages between financial statements and regulatory exposures	LI1 – Differences between accounting and regulatory scopes of consolidation and mapping of financial statements with regulatory risk categories.	Quarterly		13	
	LI2 – Main sources of differences between regulatory exposure amounts and carrying values in financial statements.	Quarterly		14	
	LIA – Explanations of differences between accounting and regulatory exposure amounts.	Quarterly		14	
Composition of capital and TLAC ¹	CC1 – Composition of regulatory capital.	Quarterly		1-3	
	CC2 – Reconciliation of regulatory capital to balance sheet.	Quarterly		5	
	CCA – Main features of regulatory capital instruments and of other TLAC-eligible instruments ² .	Quarterly			
	TLAC1 – TLAC composition (at resolution group level).	Quarterly		8	
	TLAC2 – Material subgroup entity – creditor ranking at legal entity level.	N/A ³	Not applicable to TD.		
	TLAC3 – Resolution entity – creditor ranking at legal entity level.	Quarterly		9	
Leverage ratio	LR1 – Summary comparison of accounting assets versus leverage ratio exposure measure.	Quarterly		6	
	LR2 – Leverage ratio common disclosure template.	Quarterly		6	
Credit risk	CRA – General information about credit risk.	Annual			78-81, 83-85
	CR1 – Credit quality of assets.	Quarterly		15-16	
	CR2 – Changes in stock of defaulted loans and debt securities ⁴ .	Quarterly			
	CRB – Additional disclosure related to the credit quality of assets a) to d).	Annual			86, 145, 152-153, 178
	CRB – Additional disclosure related to the credit quality of assets – e) Breakdown of exposures by geographical areas, industry and residual maturity ⁴ .	Quarterly		18-20	

Topic	Pillar 3 Disclosure Requirements (Continued)	Frequency	Page		
			SFI Fourth Quarter 2022	SRD Fourth Quarter 2022	Annual Report 2022
Credit risk	CRB – Additional disclosure related to the credit quality of assets – f) Amounts of impaired exposures (according to definition used by the bank for accounting purposes) and related allowances and write-offs broken down by geographical areas and industry.	Quarterly	25-27, 29-31		
	CRB – Additional disclosure related to the credit quality of assets – g) Ageing analysis of accounting past-due exposures ⁴ .	Quarterly			145, 178
	CRB – Additional disclosure related to the credit quality of assets – h) Breakdown of restructured exposures between impaired and not impaired exposures.	Annual		15-16	
	CRC – Qualitative disclosure requirements related to credit risk mitigation techniques.	Annual			86-87
	CR3 – Credit risk mitigation techniques – overview.	Quarterly		17	
	CRD – Qualitative disclosures on banks' use of external credit ratings under the standardized approach (SA) for credit risk.	Annual			86
	CR4 – Standardized approach – credit risk exposure and Credit Risk Mitigation (CRM) effects.	Quarterly		21	
	CR5 – Standardized approach – exposures by asset classes and risk weights.	Quarterly		22	
	CRE – Qualitative disclosures related to IRB models.	Annual			78-81, 84-87, 94-95
	CR6 – IRB – Credit risk exposures by portfolio and probability of default (PD) range.	Quarterly		23-38	
	CR7 – IRB – Effect on RWA of credit derivatives used as CRM techniques.	N/A	Impact is immaterial and has been disclosed in CR3, footnote 3.		
	CR8 – RWA flow statements of credit risk exposures under IRB.	Quarterly		11	
	CR9 – IRB – Backtesting of PD per portfolio.	Annual		61-62	
	CR10 – IRB (specialized lending and equities under the simple risk weight method).	Quarterly		39	
Counterparty credit risk	CCRA – Qualitative disclosure related to CCR.	Annual			86-87, 100
	CCR1 – Analysis of CCR exposure by approach.	Quarterly		40-41	
	CCR2 – CVA capital charge.	Quarterly		42	
	CCR3 – Standardized approach of CCR exposures by regulatory portfolio and risk weights.	N/A			
	CCR4 – IRB – CCR exposures by portfolio and PD scale.	Quarterly		43-48	
	CCR5 – Composition of collateral for CCR exposure.	Quarterly		49	
	CCR6 – Credit derivatives exposures.	Quarterly		50	
	CCR7 – RWA flow statements of CCR exposures under the Internal Model Method (IMM).	N/A	TD does not use IMM.		
	CCR8 – Exposures to central counterparties.	Quarterly		50	

Topic	Pillar 3 Disclosure Requirements (Continued)	Frequency	Page		
			SFI Fourth Quarter 2022	SRD Fourth Quarter 2022	Annual Report 2022
Securitization	SECA – Qualitative disclosure requirements related to securitization exposures.	Annual			68-69, 87, 149, 180-182
	SEC1 – Securitization exposures in the banking book.	Quarterly		54	
	SEC2 – Securitization exposures in the trading book.	Quarterly		55	
	SEC3 – Securitization exposures in the banking book and associated regulatory capital requirements – bank acting as originator or as sponsor.	Quarterly		56-57	
	SEC4 – Securitization exposures in the banking book and associated capital requirements – bank acting as investor.	Quarterly		58-59	
Market risk ⁴	MRA – Qualitative disclosure requirements related to market risk.		TD has deferred these disclosures as allowed per OSFI's Pillar 3 guideline issued April 2017.		
	MRB – Qualitative disclosures for banks using the Internal Models Approach (IMA).				
	MR1 – Market risk under standardized approach.				
	MR2 – RWA flow statements of market risk exposures under an IMA.				
	MR3 – IMA values for trading portfolios.				
	MR4 – Comparison of VaR ⁵ estimates with gains/losses.				

¹ Total loss absorbing capacity (TLAC).

² CCA is available at <https://www.td.com/investor-relations/ir-homepage/regulatory-disclosures/main-features-of-capital-instruments/main-features-of-capital-instruments.jsp>.

³ Not applicable.

⁴ Current disclosures in SFI and annual report do not contain any exposures related to the deconsolidated insurance entities, therefore the Pillar 3 requirements are fulfilled based on current disclosure.

⁵ Value-at-Risk.

Capital Position – Basel III (CC1)

(\$ millions)
As at

Common Equity Tier 1 Capital

Common shares plus related contributed surplus

Retained earnings

Accumulated other comprehensive income (loss)

Directly issued capital subject to phase out from CET1²

Common share capital issued by subsidiaries and held by third parties (amount allowed in group CET1)

Common Equity Tier 1 Capital before regulatory adjustments

Common Equity Tier 1 Capital regulatory adjustments

Prudential valuation adjustments

Goodwill (net of related tax liability)

Intangibles (net of related tax liability)

Deferred tax assets excluding those arising from temporary differences

Cash flow hedge reserve

Shortfall of provisions to expected losses

Securitization gain on sale

Gains and losses due to changes in own credit risk on fair valued liabilities

Defined benefit pension fund net assets (net of related tax liability)

Investment in own shares

Reciprocal cross holdings in common equity

Non-significant investments in the capital of banking, financial and insurance entities, net of eligible short positions (amount above 10% threshold)

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)

Mortgage servicing rights (amount above 10% threshold)

Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability)

Amount exceeding the 15% threshold

of which: significant investments in the common stock of financials

of which: mortgage servicing rights

of which: deferred tax assets arising from temporary differences

Other deductions or regulatory adjustments to CET1 as determined by OSFI

Regulatory adjustments applied to Common Equity Tier 1 due to insufficient Additional Tier 1 and Tier 2 to cover deductions

Total regulatory adjustments to Common Equity Tier 1 Capital

Common Equity Tier 1 Capital

Common Equity Tier 1 Capital with transitional arrangements for ECL provisioning not applied

Additional Tier 1 capital instruments

Directly issued qualifying Additional Tier 1 instruments plus stock surplus

of which: classified as equity under applicable accounting standards

of which: classified as liabilities under applicable accounting standards

Directly issued capital instruments subject to phase out from Additional Tier 1

Additional Tier 1 instruments issued by subsidiaries and held by third parties

of which: instruments issued by subsidiaries subject to phase out

Additional Tier 1 capital instruments before regulatory adjustments

Additional Tier 1 capital instruments regulatory adjustments

Investment in own Additional Tier 1 instruments

Reciprocal cross holdings in Additional Tier 1 instruments

Non-significant investments in the capital of banking, financial and insurance entities, net of eligible short positions (amount above 10% threshold)

Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation,

net of eligible short positions

Other deductions from Tier 1 capital as determined by OSFI

of which: Reverse mortgages

Regulatory adjustments applied to Additional Tier 1 due to insufficient Tier 2 to cover deductions

Total regulatory adjustments to Additional Tier 1 Capital

Additional Tier 1 Capital

Tier 1 Capital

Tier 1 Capital with transitional arrangements for ECL provisioning not applied

LINE #	Q4	Q3	2022 Q2	Q1	2021 Q4	Cross Reference ¹
1	\$ 24,449	\$ 23,807	\$ 23,036	\$ 23,128	\$ 23,086	A1+A2+B
2	73,698	69,090	67,046	65,621	63,944	C
3	1,988	2,359	2,791	7,532	7,097	D
4	n/a	n/a	n/a	n/a	—	
5	—	—	—	—	—	
6	100,135	95,256	92,873	96,281	94,127	
7	—	—	—	—	—	
8	(17,498)	(16,585)	(16,607)	(16,474)	(16,099)	E1-E2
9	(2,100)	(1,976)	(1,947)	(2,030)	(2,006)	F1-F2
10	(83)	(102)	(101)	(101)	(100)	G
11	5,783	1,974	2,310	(1,121)	(1,691)	H
12	—	—	—	—	—	I
13	—	—	—	—	—	
14	(502)	(348)	(265)	(142)	(124)	J
15	(1,038)	(1,504)	(1,236)	(729)	(470)	K1-K2
16	(9)	—	(10)	(5)	(36)	
17	—	—	—	—	—	
18	(1,428)	(3,079)	(3,487)	(4,538)	(4,486)	L1+L2
19	—	—	—	—	—	
20	—	—	—	—	—	
21	—	—	—	—	—	
22	—	—	—	—	—	
23	—	—	—	—	—	
24	—	—	—	—	—	
25	—	—	—	—	—	
26	411	339	336	382	822	M
27	—	—	—	—	—	
28	(16,464)	(21,281)	(21,007)	(24,758)	(24,190)	
29	83,671	73,975	71,866	71,523	69,937	
29a	83,260	73,636	71,530	71,141	69,115	
30	11,248	7,336	6,539	5,696	5,691	N+O+P
31	11,248	7,336	6,539	5,696	5,691	
32	—	—	—	—	—	
33	n/a	n/a	n/a	n/a	450	
34	—	—	—	—	—	
35	n/a	n/a	n/a	n/a	—	
36	11,248	7,336	6,539	5,696	6,141	
37	—	—	—	—	—	
38	—	—	—	—	—	
39	(124)	(227)	(236)	(13)	(12)	Q
40	(350)	(350)	(350)	(350)	(350)	R
41	—	—	—	—	—	
41a	—	—	—	—	—	
42	—	—	—	—	—	
43	(474)	(577)	(586)	(363)	(362)	
44	10,774	6,759	5,953	5,333	5,779	
45	94,445	80,734	77,819	76,856	75,716	
45a	\$ 94,034	\$ 80,395	\$ 77,483	\$ 76,474	\$ 74,894	

¹ Cross referenced to the Reconciliation with Balance Sheet Under Regulatory Scope of Consolidation table on page 5.

² Common Equity Tier 1 (CET1).

Capital Position – Basel III (CC1) (Continued)

(\$ millions)
As at

Tier 2 capital instruments and provisions

Directly issued qualifying Tier 2 instruments plus related stock surplus

Directly issued capital instruments subject to phase out from Tier 2

Tier 2 instruments issued by subsidiaries and held by third parties

of which: instruments issued by subsidiaries subject to phase out

Collective allowance

Tier 2 Capital before regulatory adjustments

Tier 2 regulatory adjustments

Investments in own Tier 2 instruments

Reciprocal cross holding in Tier 2 instruments and Other TLAC-eligible instruments

Non-significant investments in the capital of banking, financial and insurance entities and Other TLAC-eligible instruments issued by global systemically important banks (G-SIBs) and Canadian domestic systemically important banks (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)

Non-significant investments in the other TLAC-eligible instruments issued by G-SIBs and Canadian D-SIBs, where the institution does not own more than 10% of the issued common share capital of the entity: amount previously designated for the 5% threshold but that no longer meets the conditions

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

Other deductions from Tier 2 capital

Total regulatory adjustments to Tier 2 Capital

Tier 2 Capital

Total Capital

Total Capital with transitional arrangements for ECL provisioning not applied

Total risk-weighted assets

Capital Ratios

Common Equity Tier 1 Capital (as percentage of RWA)

Common Equity Tier 1 Capital Ratio with transitional arrangements for ECL provisioning not applied

Tier 1 Capital Ratio

Tier 1 Capital Ratio with transitional arrangements for ECL provisioning not applied

Total Capital (as percentage of RWA)

Total Capital Ratio with transitional arrangements for ECL provisioning not applied

Buffer requirement (minimum CET1 requirement plus capital conservation buffer plus G-SIBs buffer plus D-SIBs buffer requirement expressed as percentage of RWA)^{2,3}

of which: capital conservation buffer requirement

of which: bank-specific countercyclical buffer requirement⁴

of which: G-SIB buffer requirement⁵

of which: D-SIB buffer requirement

Common Equity Tier 1 available to meet buffers (as percentage of RWA)

OSFI target (minimum plus conservation buffer plus D-SIB surcharge (if applicable))⁶

Common Equity Tier 1 target ratio

Tier 1 target ratio

Total Capital target ratio

LINE #	2022				2021 Q4	Cross Reference ¹
	Q4	Q3	Q2	Q1		
46	\$ 11,090	\$ 11,067	\$ 11,051	\$ 11,104	\$ 11,030	S
47	n/a	n/a	n/a	n/a	120	
48	—	—	—	—	—	
49	n/a	n/a	n/a	n/a	—	
50	2,018	1,965	1,964	2,113	1,665	T
51	13,108	13,032	13,015	13,217	12,815	
52	—	—	—	—	(8)	
53	—	—	—	—	—	
54	(161)	(272)	(303)	(372)	(308)	U
54a	(57)	(152)	(100)	(153)	(68)	V
55	(160)	(160)	(160)	(160)	(160)	W
56	—	—	—	—	—	
57	(378)	(584)	(563)	(685)	(544)	
58	12,730	12,448	12,452	12,532	12,271	
59	107,175	93,182	90,271	89,388	87,987	
59a	107,175	93,182	90,271	89,388	87,987	
60	\$ 517,048	\$ 495,706	\$ 488,991	\$ 470,852	\$ 460,270	
61	16.2 %	14.9 %	14.7 %	15.2 %	15.2 %	
61a	16.1	14.9	14.6	15.1	15.0	
62	18.3	16.3	15.9	16.3	16.5	
62a	18.2	16.2	15.8	16.2	16.3	
63	20.7	18.8	18.5	19.0	19.1	
63a	20.7	18.8	18.5	19.0	19.1	
64	8.0	8.0	8.0	8.0	8.0	
65	2.5	2.5	2.5	2.5	2.5	
66	—	—	—	—	—	
67	1.0	1.0	1.0	1.0	1.0	
67a	—	—	—	—	—	
68	16.2	14.9	14.7	15.2	15.2	
69	8.0	8.0	8.0	8.0	8.0	
70	9.5	9.5	9.5	9.5	9.5	
71	11.5	11.5	11.5	11.5	11.5	

¹ Cross referenced to the Reconciliation with Balance Sheet Under Regulatory Scope of Consolidation table on page 5.

² The minimum CET1 requirement prior to the buffers is 4.5%.

³ The Financial Stability Board (FSB), in consultation with BCBS and national authorities, has identified the 2021 list of G-SIBs, using 2020 fiscal year-end data. The Bank was identified as a G-SIB on November 22, 2019.

⁴ The countercyclical buffer surcharge is in effect.

⁵ Common equity capital G-SIB surcharge is in effect.

⁶ Reflects Pillar 1 targets and does not include Pillar 2 domestic stability buffer. Effective October 31, 2021, the buffer is 2.5%.

Capital Position – Basel III (CC1) (Continued)

(\$ millions, except as noted)

As at

Amounts below the thresholds for deduction (before risk weighting)

Non-significant investments in the capital and Other TLAC-eligible instruments of other financial entities

Significant investments in the common stock of financials

Mortgage servicing rights (net of related tax liability)

Deferred tax assets arising from temporary differences (net of related tax liability)

Applicable caps on the inclusion of allowances in Tier 2

Allowance eligible for inclusion in Tier 2 in respect of exposures subject to standardized approach (prior to application of cap)

Cap on inclusion of allowances in Tier 2 under standardized approach

Allowance eligible for inclusion in Tier 2 in respect of exposures subject to internal ratings-based approach (prior to application of cap)

Cap on inclusion of allowances in Tier 2 under internal ratings-based approach

Capital instruments subject to phase-out arrangements (only applicable between January 1, 2013 to January 1, 2022)

Current cap on CET1 instruments subject to phase out arrangements

Amounts excluded from CET1 due to cap (excess over cap after redemptions and maturities)

Current cap on Additional Tier 1 instruments subject to phase out arrangements

Amounts excluded from Additional Tier 1 due to cap (excess over cap after redemptions and maturities)

Current cap on Tier 2 instruments subject to phase out arrangements

Amounts excluded from Tier 2 due to cap (excess over cap after redemptions and maturities)

Capital Ratios for significant bank subsidiaries

TD Bank, National Association (TD Bank, N.A.)⁷

Common Equity Tier 1 Capital

Tier 1 Capital

Total Capital

TD Mortgage Corporation

Common Equity Tier 1 Capital

Tier 1 Capital

Total Capital

LINE #	2022				2021 Q4
	Q4	Q3	Q2	Q1	
72	\$ 8,510	\$ 7,704	\$ 7,535	\$ 7,606	\$ 7,442
73	2,070	2,218	2,113	2,232	2,055
74	104	101	101	93	87
75	1,140	1,646	2,927	1,631	327
76	300	283	274	269	280
77	247	238	229	210	210
78	2,182	2,066	2,071	2,285	2,408
79	2,182	2,066	2,071	2,285	2,277
80	n/a	n/a	n/a	n/a	–
81	n/a	n/a	n/a	n/a	–
82	n/a	n/a	n/a	n/a	675
83	n/a	n/a	n/a	n/a	–
84	n/a	n/a	n/a	n/a	876
85	n/a	n/a	n/a	n/a	–
86	17.7 %	17.4 %	17.9 %	18.1 %	18.0 %
87	17.7	17.4	17.9	18.1	18.0
88	18.8	18.5	19.0	19.3	19.3
89	42.5	41.3	40.9	40.5	40.1
90	42.5	41.3	40.9	40.5	40.1
91	42.5	41.3	40.9	40.5	40.3

⁷ On a stand-alone basis, TD Bank, N.A. reports regulatory capital to the Office of the Comptroller of the Currency on calendar quarter ends.

Flow Statement for Regulatory Capital¹

(\$ millions)

Common Equity Tier 1

Balance at beginning of period
New capital issues
Redeemed capital ²
Gross dividends (deductions)
Shares issued in lieu of dividends (add back)
Profit attributable to shareholders of the parent company ³
Removal of own credit spread (net of tax)
Movements in other comprehensive income
Currency translation differences
Available-for-sale investments
Financial assets at fair value through other comprehensive income
Other
Goodwill and other intangible assets (deduction, net of related tax liability)
Other, including regulatory adjustments and transitional arrangements
Deferred tax assets that rely on future profitability (excluding those arising from temporary differences)
Prudential valuation adjustments
Other

Balance at end of period

Additional Tier 1 Capital

Balance at beginning of period
New additional Tier 1 eligible capital issues
Redeemed capital
Other, including regulatory adjustments and transitional arrangements

Balance at end of period

Total Tier 1 Capital

Tier 2 Capital

Balance at beginning of period
New Tier 2 eligible capital issues
Redeemed capital
Amortization adjustments
Allowable collective allowance
Other, including regulatory adjustments and transitional arrangements

Balance at end of period

Total Regulatory Capital

LINE #	2022				2021
	Q4	Q3	Q2	Q1	Q4
1	\$ 73,975	\$ 71,866	\$ 71,523	\$ 69,937	\$ 67,262
2	23	7	14	76	19
3	—	—	(1,431)	(764)	—
4	(1,720)	(1,647)	(1,669)	(1,665)	(1,500)
5	596	610	114	122	102
6	6,671	3,214	3,811	3,733	3,781
7	(154)	(83)	(123)	(18)	(34)
8	4,335	(111)	1,003	1,591	(469)
9	n/a	n/a	n/a	n/a	n/a
10	(209)	97	(458)	(153)	(46)
11	(688)	(754)	(1,855)	(433)	(191)
12	(1,037)	(7)	(50)	(399)	128
13	19	(1)	—	(1)	22
14	—	—	—	—	—
15	1,860	784	987	(503)	863
16	83,671	73,975	71,866	71,523	69,937
17	6,759	5,953	5,333	5,779	6,777
18	3,903	800	850	—	—
19	—	—	—	(450)	(1,000)
20	112	6	(230)	4	2
21	10,774	6,759	5,953	5,333	5,779
22	94,445	80,734	77,819	76,856	75,716
23	12,448	12,452	12,532	12,271	12,162
24	—	—	—	—	—
25	—	—	—	—	—
26	—	—	—	—	—
27	53	1	(149)	448	96
28	229	(5)	69	(187)	13
29	12,730	12,448	12,452	12,532	12,271
30	\$ 107,175	\$ 93,182	\$ 90,271	\$ 89,388	\$ 87,987

¹ The statement is based on the applicable regulatory rules in force at the period end.

² Represents impact of shares repurchased for cancellation.

³ Profit attributable to shareholders of the parent company reconciles to the income statement.

Reconciliation with Balance Sheet Under Regulatory Scope of Consolidation (CC2)

(\$ millions)

As at

LINE #	2022 Q4		Cross Reference ³
	Balance Sheet ¹	Under Regulatory scope of consolidation ²	
Cash and due from banks	\$ 8,556	\$ 8,548	
Interest-bearing deposits with banks	137,294	137,160	
Trading loans, securities, and other	143,726	143,726	
Non-trading financial assets at fair value through profit or loss	10,946	10,370	
Derivatives	103,873	103,872	
Financial assets designated at fair value through profit or loss	5,039	1,663	
Financial assets at fair value through other comprehensive income	69,675	66,572	
Non-Significant investments in financials (excluding Schwab)			
Non-significant investments exceeding regulatory thresholds – CET1		73	L1
Non-significant investments exceeding regulatory thresholds – Additional Tier 1		124	Q
Non-significant investments exceeding regulatory thresholds – Tier 2		161	U
Non-significant investments previously designated for the 5% threshold but no longer meets the conditions		57	V
Non-significant investments not exceeding regulatory thresholds		1,720	
Debt securities at amortized cost, net of allowance for credit losses	342,774	342,733	
Securities purchased under reverse repurchase agreements	160,167	160,167	
Loans	837,475	837,475	
Allowance for loan losses	(6,432)	(6,432)	
Eligible allowance reflected in Tier 2 regulatory capital		(2,018)	T
Shortfall of allowance to expected loss			I
Transitional arrangement for expected credit loss provisioning		(411)	M
Allowances not reflected in regulatory capital		(4,003)	
Other	104,435	101,801	
Investment in Schwab			
Non-significant investments exceeding regulatory thresholds		1,355	L2
Non-significant investments not exceeding regulatory thresholds		6,733	
Goodwill		17,656	E1
Other intangibles		2,199	F1
Other intangibles (Mortgage Servicing Rights)		104	
Deferred tax assets			
Deferred tax assets (DTA) excluding those arising from temporary differences		83	G
DTA's (net of associated deferred tax liabilities (DTL)) realizable through net operating loss (NOL) carryback		1,140	
DTA's (net of associated DTL's) arising from temporary differences but not realizable through NOL carryback		1,473	
Other DTA/DTL adjustments ⁴		(575)	
Significant investments in financials			
Significant investments exceeding regulatory thresholds		–	
Significant investments not exceeding regulatory thresholds		70	
Defined pension benefits		1,406	K1
Other Assets		70,157	
TOTAL ASSETS	1,917,528	1,907,655	
LIABILITIES AND EQUITY			
Trading deposits	23,805	23,805	
Derivatives	91,133	91,133	
Securitization liabilities at fair value	12,612	12,612	
Financial liabilities designated at fair value through profit or loss	162,786	162,786	
Deposits	1,229,970	1,229,970	
Other	274,549	264,676	
Deferred tax liabilities			
Goodwill		158	E2
Intangible assets (excluding mortgage servicing rights)		99	F2
Defined benefit pension fund assets		368	K2
Other deferred tax liabilities (Cash flow hedges and other DTL's)		186	
Other DTA/DTL adjustments ⁴		(575)	
Gains and losses due to changes in own credit risk on fair value liabilities		502	J
Other liabilities		263,938	
Subordinated notes and debentures	11,290	11,290	
Directly issued qualifying Tier 2 instruments		11,090	S
Regulatory capital amortization of maturing debentures			
Subordinated notes not allowed for regulatory capital		200	
Liabilities	1,806,145	1,796,272	
Common Shares	24,363	24,363	A1
Preferred Shares and other equity instruments	11,253	11,253	
Directly issued qualifying Additional Tier 1 instruments		11,253	N
Preferred shares not allowed for regulatory capital			
Treasury Shares – Common	(91)	(91)	A2
Treasury Shares – Preferred	(7)	(7)	
Treasury Shares – non-viability contingent capital (NVCC) Preferred Shares		(7)	O
Contributed Surplus	179	179	
Contributed surplus – Common Shares		177	B
Contributed surplus – Preferred Shares		2	P
Retained Earnings	73,698	73,698	C
Accumulated other comprehensive income (AOCI)	1,988	1,988	D
Cash flow hedges requiring derecognition		(5,783)	H
Net AOCI included as capital		7,771	
TOTAL LIABILITIES AND EQUITY	1,917,528	1,907,655	

¹ As per Balance Sheet on page 14 in the Supplemental Financial Information Package.

² Legal entities excluded from the regulatory scope of consolidation included the following insurance subsidiaries: Meloche Monnex Inc. (consolidated), TD Life Insurance Company, and TD Reinsurance (Barbados) Inc. which have total assets included in the consolidated Bank of \$9.9 billion and total equity of \$2.5 billion, of which \$350 million is deducted from additional Tier 1, and \$160 million is deducted from Tier 2 Capital. Cross referenced (R, W) respectively, to the Capital Position – Basel III on pages 1 and 2.

³ Cross referenced to the current period on the Capital Position – Basel III on pages 1 to 3.

⁴ This adjustment is related to deferred tax assets/liabilities netted for financial accounting purposes.

Leverage Ratio

(\$ millions, except as noted)

As at

Summary comparison of accounting assets vs. leverage ratio exposure measure (LR1)

Total consolidated assets as per published financial statements
 Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation
 Adjustment for securitized exposures that meet the operational requirements for the recognition of risk transference
 Adjustments for fiduciary assets recognized on the balance sheet pursuant to the operative accounting framework but excluded from the leverage ratio exposure measure
 Adjustments for derivative financial instruments
 Adjustment for securities financing transactions (SFTs)
 Adjustment for off-balance sheet items (credit equivalent amounts)
 Other adjustments

Leverage Ratio Exposure

Leverage Ratio Common Disclosure Template (LR2)

On-balance sheet exposures

On-balance sheet items (excluding derivatives, SFTs and grandfathered securitization exposures but including collateral)
 Gross up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the operative accounting framework

Deductions of receivables assets for cash variation margin provided in derivative transactions
 Less: Asset amounts deducted in determining Tier 1 Capital

Total on-balance sheet exposures (excluding derivatives and SFTs)

Derivative exposures

Replacement cost associated with all derivative transactions (such as net of eligible cash variation margin)
 Add-on amounts for potential future exposure (PFE) associated with all derivative transactions
 Exempted central counterparty (CCP)-leg of client cleared trade exposures
 Adjusted effective notional amount of written credit derivatives
 Adjusted effective notional offsets and add-on deductions for written credit derivatives

Total derivative exposures

Securities financing transaction exposures

Gross SFT assets recognized for accounting purposes (with no recognition of netting), after adjusting for sale accounting transactions
 Netted amounts of cash payables and cash receivables of gross SFT assets
 Counterparty credit risk (CCR) exposure for SFTs
 Agent transaction exposures

Total securities financing transaction exposures

Other off-balance sheet exposures

Off-balance sheet exposure at gross notional amount
 Adjustments for conversion to credit equivalent amounts
 Off-balance sheet items

Capital on total exposures

Tier 1 Capital – "All-in" basis (line 45 on page 1)

Tier 1 Capital with transitional arrangements for ECL provisioning not applied

Total Exposures (sum of lines 14, 20, 25 and 28) – All-in basis

Leverage Ratio

Leverage Ratio with transitional arrangements for ECL provisioning not applied

LINE #	2022					2021 Q4	OSFI Template
	Q4	Q3	Q2	Q1			
1	\$ 1,917,528	\$ 1,840,811	\$ 1,825,276	\$ 1,778,588	\$ 1,728,672		1
2	(7,713)	(7,516)	(7,350)	(7,494)	(7,301)		2
3	(959)	(1,228)	(1,228)	(1,228)	(1,228)		3
4	–	–	–	–	–		4
5	(12,822)	(4,257)	(21,166)	14,469	8,307		5
6	(18,349)	(8,718)	(16,875)	(21,237)	(25,741)		6
7	200,941	189,121	188,252	183,156	178,892		7
8	(144,894)	(142,809)	(138,747)	(180,923)	(294,879)		8
9	\$ 1,933,732	\$ 1,865,404	\$ 1,828,162	\$ 1,765,331	\$ 1,586,722		9
10	\$ 1,516,770	\$ 1,473,949	\$ 1,429,075	\$ 1,393,966	\$ 1,228,805		1
11	–	–	–	–	–		2
12	(11,552)	(10,506)	(12,658)	(8,301)	(9,652)		3
13	(16,848)	(21,848)	(21,663)	(25,361)	(25,249)		4
14	1,488,370	1,441,595	1,394,754	1,360,304	1,193,904		5
15	41,542	30,804	34,722	21,368	20,566		6
16	54,534	49,897	53,961	54,355	50,515		7
17	–	–	–	–	–		8
18	7,816	2,721	2,770	3,736	2,964		9
19	(1,289)	(1,292)	(1,160)	(2,170)	(1,662)		10
20	102,603	82,130	90,293	77,289	72,383		11
21	160,167	161,275	171,738	165,818	167,284		12
22	(22,464)	(12,611)	(21,823)	(25,456)	(29,384)		13
23	4,115	3,894	4,948	4,220	3,643		14
24	–	–	–	–	–		15
25	141,818	152,558	154,863	144,582	141,543		16
26	697,807	663,218	661,594	639,432	629,117		17
27	(496,866)	(474,097)	(473,342)	(456,276)	(450,225)		18
28	200,941	189,121	188,252	183,156	178,892		19
29	94,445	80,734	77,819	76,856	75,716		20
30	94,034	80,395	77,483	76,474	74,894		20a
31	\$ 1,933,732	\$ 1,865,404	\$ 1,828,162	\$ 1,765,331	\$ 1,586,722		21
32	4.9 %	4.3 %	4.3 %	4.4 %	4.8 %		22
33	4.9	4.3	4.2	4.3	4.7		22a

Key Metrics – TLAC Requirements (KM2)

(\$ millions, except as noted)

Resolution group 1

Total loss absorbing capacity (TLAC) available

TLAC available with transitional arrangements for ECL provisioning not applied¹

Total RWA at the level of the resolution group

TLAC ratio: TLAC as a percentage of RWA (row 1 / row 2) %

TLAC ratio: TLAC as a percentage of RWA (row 1a / row 2) (%) available with transitional arrangements for ECL provisioning not applied¹

Leverage ratio exposure measure at the level of the resolution group

TLAC Leverage Ratio: TLAC as a percentage of leverage ratio exposure measure (row 1 / row 4) %

TLAC Leverage Ratio: TLAC as a percentage of leverage ratio exposure measure with transitional arrangements for ECL provisioning not applied (row 1a / row 4) %¹

Does the subordination exemption in the antepenultimate paragraph of Section 11 of the FSB TLAC Term Sheet apply?

Does the subordination exemption in the penultimate paragraph of Section 11 of the FSB TLAC Term Sheet apply?

If the capped subordination exemption applies, the amount of funding issued that ranks pari passu with Excluded Liabilities and that is recognized as external TLAC, divided by funding issued that ranks pari passu with Excluded Liabilities and that would be recognized as external TLAC if no cap was applied (%)

LINE #	2022				2021 Q4
	Q4	Q3	Q2	Q1	
1	\$ 181,871	\$ 158,390	\$ 148,567	\$ 134,606	\$ 130,380
1a	181,871	158,390	148,567	134,606	130,380
2	517,048	495,706	488,991	470,852	460,270
3	35.2 %	32.0 %	30.4 %	28.6 %	28.3 %
3a	35.2	32.0	30.4	28.6	28.3
4	\$ 1,933,732	\$ 1,865,404	\$ 1,828,162	\$ 1,765,331	\$ 1,586,722
5	9.4 %	8.5 %	8.1 %	7.6 %	8.2 %
5a	9.4	8.5	8.1	7.6	8.2
6a	Yes	Yes	Yes	Yes	Yes
6b	No	No	No	No	No
6c	n/a	n/a	n/a	n/a	n/a

¹ Includes the transitional arrangements for expected credit loss provisioning provided by OSFI as announced on March 27, 2020. Lines 1a, 3a and 5a represent TLAC available with transitional arrangements for ECL provisioning not applied.

TLAC Composition (TLAC1)

(\$ millions, except as noted)

Regulatory capital elements of TLAC and adjustments

Common Equity Tier 1 capital (CET1)

Additional Tier 1 capital (AT1) before TLAC adjustments

AT1 ineligible as TLAC as issued out of subsidiaries to third parties

Other adjustments

AT1 instruments eligible under the TLAC framework (sum of lines 2 to 4)

Tier 2 capital (T2) before TLAC adjustments

Amortized portion of T2 instruments where remaining maturity > 1 year

T2 capital ineligible as TLAC as issued out of subsidiaries to third parties

Other adjustments

T2 instruments eligible under the TLAC framework (sum of lines 6 to 9)

TLAC arising from regulatory capital (sum of lines 1, 5 and 10)

Non-regulatory capital elements of TLAC

External TLAC instruments issued directly by the bank and subordinated to excluded liabilities

External TLAC instruments issued directly by the bank which are not subordinated to excluded liabilities but meet all other TLAC term sheet requirements

Of which: amount eligible as TLAC after application of the caps

External TLAC instruments issued by funding vehicles prior to January 1, 2022

Eligible ex ante commitments to recapitalize a G-SIB in resolution

TLAC arising from non-regulatory capital instruments before adjustments (sum of lines 12, 13, 15 and 16)

Non-regulatory capital elements of TLAC: adjustments

TLAC before deductions (sum of lines 11 and 17)

Deductions of exposures between MPE resolution groups that correspond to items eligible for TLAC (not applicable to SPE G-SIBs and D-SIBs)¹

Deduction of investments in own other TLAC liabilities

Other adjustments to TLAC

TLAC available after deductions (sum of lines 18 to 21)

Risk-weighted assets and leverage exposure measure for TLAC purposes

Total risk-weighted assets adjusted as permitted under the TLAC regime

Leverage exposure measure

TLAC ratios and buffers

TLAC Ratio (as a percentage of risk-weighted assets adjusted as permitted under the TLAC regime) (line 22/line 23)

TLAC Leverage Ratio (as a percentage of leverage exposure) (line 22/line 24)

CET1 (as a percentage of risk-weighted assets) available after meeting the resolution group's minimum capital and TLAC requirements²

Institution-specific buffer (capital conservation buffer plus countercyclical buffer plus higher loss absorbency, expressed as a percentage of risk-weighted assets)

Of which: capital conservation buffer

Of which: bank specific countercyclical buffer

Of which: D-SIB / G-SIB buffer

LINE #	2022				2021 Q4
	Q4	Q3	Q2	Q1	
1	\$ 83,671	\$ 73,975	\$ 71,866	\$ 71,523	\$ 69,937
2	10,774	6,759	5,953	5,333	5,779
3	—	—	—	—	—
4	—	—	—	—	—
5	10,774	6,759	5,953	5,333	5,779
6	12,730	12,448	12,452	12,532	12,271
7	—	—	—	—	80
8	—	—	—	—	—
9	—	—	—	—	—
10	12,730	12,448	12,452	12,532	12,351
11	107,175	93,182	90,271	89,388	88,067
12	n/a	n/a	n/a	n/a	n/a
13	75,306	65,405	58,464	45,665	42,541
14	n/a	n/a	n/a	n/a	n/a
15	—	—	—	—	—
16	n/a	n/a	n/a	n/a	n/a
17	75,306	65,405	58,464	45,665	42,541
18	182,481	158,587	148,735	135,053	130,608
19	n/a	n/a	n/a	n/a	n/a
20	(610)	(197)	(168)	(447)	(228)
21	—	—	—	—	—
22	181,871	158,390	148,567	134,606	130,380
23	517,048	495,706	488,991	470,852	460,270
24	1,933,732	1,865,404	1,828,162	1,765,331	1,586,722
25	35.2 %	32.0 %	30.4 %	28.6 %	28.3 %
26	9.4	8.5	8.1	7.6	8.2
27	11.7	10.3	9.9	9.9	n/a
28	3.5 %	3.5 %	3.5 %	3.5 %	3.5 %
29	2.5	2.5	2.5	2.5	2.5
30	—	—	—	—	—
31	1.0	1.0	1.0	1.0	1.0

¹ Multiple point of entry (MPE); Single point of entry (SPE).

² Applicable starting the first quarter of 2022.

Creditor Ranking at Legal Entity Level (TLAC3)

(\$ millions) As at	LINE #	2022 Q4						2022 Q3					
		Creditor Ranking						Creditor Ranking					
		1	2	3	4	5	Sum of 1 to 5	1	2	3	4	5	Sum of 1 to 5
		(most junior)			(most senior)			(most junior)			(most senior)		
		Common Shares	Preferred shares & Tier 1 notes	Subordinated debts	Bail-in debts ¹	Other liabilities ²	Sum	Common Shares	Preferred shares & Tier 1 notes	Subordinated debts	Bail-in debts ¹	Other liabilities ²	Sum
Description of creditor ranking (free text)	1												
Total capital and liabilities net of credit risk mitigation	2	24,363	11,253	11,492	88,874	–	135,982	23,744	7,350	11,370	76,146	–	118,610
Subset of row 2 that are excluded liabilities	3	100	7	275	13,194	–	13,576	104	16	222	10,405	–	10,747
Total capital and liabilities less excluded liabilities (row 2 minus row 3)	4	24,263	11,246	11,217	75,680	–	122,406	23,640	7,334	11,148	65,741	–	107,863
Subset of row 4 that are potentially eligible as TLAC	5	24,263	11,246	11,217	75,680	–	122,406	23,640	7,334	11,148	65,741	–	107,863
Subset of row 5 with 1 year ≤ residual maturity < 2 years	6	–	–	–	18,400	–	18,400	–	–	–	14,739	–	14,739
Subset of row 5 with 2 years ≤ residual maturity < 5 years	7	–	–	–	43,321	–	43,321	–	–	–	39,048	–	39,048
Subset of row 5 with 5 years ≤ residual maturity < 10 years	8	–	–	11,217	13,939	–	25,156	–	–	11,148	11,935	–	23,083
Subset of row 5 with residual maturity ≥ 10 years, but excluding perpetual securities	9	–	–	–	20	–	20	–	–	–	19	–	19
Subset of row 5 that is perpetual securities	10	24,263	11,246	–	–	–	35,509	23,640	7,334	–	–	–	30,974
		2022 Q2						2022 Q1					
		Creditor Ranking						Creditor Ranking					
		1	2	3	4	5	Sum of 1 to 5	1	2	3	4	5	Sum of 1 to 5
		(most junior)			(most senior)			(most junior)			(most senior)		
		Common Shares	Preferred shares & Tier 1 notes	Subordinated debts	Bail-in debts ¹	Other liabilities ²	Sum	Common Shares	Preferred shares & Tier 1 notes	Subordinated debts	Bail-in debts ¹	Other liabilities ²	Sum
Description of creditor ranking (free text)	11												
Total capital and liabilities net of credit risk mitigation	12	23,127	6,550	11,373	65,080	–	106,130	23,170	5,700	11,355	51,613	–	91,838
Subset of row 12 that are excluded liabilities	13	253	13	230	6,228	–	6,724	193	6	222	6,247	–	6,668
Total capital and liabilities less excluded liabilities (row 12 minus row 13)	14	22,874	6,537	11,143	58,852	–	99,406	22,977	5,694	11,133	45,366	–	85,170
Subset of row 14 that are potentially eligible as TLAC	15	22,874	6,537	11,143	58,852	–	99,406	22,977	5,694	11,133	45,366	–	85,170
Subset of row 15 with 1 year ≤ residual maturity < 2 years	16	–	–	–	16,126	–	16,126	–	–	–	6,138	–	6,138
Subset of row 15 with 2 years ≤ residual maturity < 5 years	17	–	–	–	33,264	–	33,264	–	–	–	33,761	–	33,761
Subset of row 15 with 5 years ≤ residual maturity < 10 years	18	–	–	11,143	9,443	–	20,586	–	–	11,133	5,448	–	16,581
Subset of row 15 with residual maturity ≥ 10 years, but excluding perpetual securities	19	–	–	–	19	–	19	–	–	–	19	–	19
Subset of row 15 that is perpetual securities	20	22,874	6,537	–	–	–	29,411	22,977	5,694	–	–	–	28,671
		2021 Q4											
		Creditor Ranking											
		1	2	3	4	5	Sum of 1 to 5						
		(most junior)			(most senior)								
		Common Shares	Preferred shares & Tier 1 notes	Subordinated debts	Bail-in debts ¹	Other liabilities ²	Sum						
Description of creditor ranking (free text)	21												
Total capital and liabilities net of credit risk mitigation	22	23,066	5,700	11,304	43,174	–	83,244						
Subset of row 22 that are excluded liabilities	23	187	10	139	778	–	1,114						
Total capital and liabilities less excluded liabilities (row 22 minus row 23)	24	22,879	5,690	11,165	42,396	–	82,130						
Subset of row 24 that are potentially eligible as TLAC	25	22,879	5,690	11,165	42,396	–	82,130						
Subset of row 25 with 1 year ≤ residual maturity < 2 years	26	–	–	–	11,284	–	11,284						
Subset of row 25 with 2 years ≤ residual maturity < 5 years	27	–	–	120	26,467	–	26,587						
Subset of row 25 with 5 years ≤ residual maturity < 10 years	28	–	–	9,295	4,626	–	13,921						
Subset of row 25 with residual maturity ≥ 10 years, but excluding perpetual securities	29	–	–	1,750	19	–	1,769						
Subset of row 25 that is perpetual securities	30	22,879	5,690	–	–	–	28,569						

¹ Consistent with the scope of the Canadian statutory Bail-in Regime, Bail-in Debt is 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.

² Completion of this column is not required by OSFI at this time.

Overview of Risk-Weighted Assets (OV1)

(\$ millions) As at	LINE #	Risk-Weighted Assets (RWA) ¹					Minimum capital requirements ²					OSFI Template
		2022				2021	2022				2021	
		Q4	Q3	Q2	Q1	Q4	Q4	Q3	Q2	Q1	Q4	
Credit risk (excluding counterparty credit risk) (CCR)	1	\$ 357,448	\$ 334,196	\$ 324,716	\$ 315,381	\$ 312,514	\$ 28,596	\$ 26,736	\$ 25,977	\$ 25,230	\$ 25,001	1
Of which: standardized approach (SA) ³	2	33,157	31,386	30,321	29,267	30,897	2,653	2,511	2,426	2,341	2,472	2
Of which: internal ratings-based (IRB) approach	3	324,291	302,810	294,395	286,114	281,617	25,943	24,225	23,551	22,889	22,529	3
Counterparty credit risk	4	19,151	19,322	18,301	18,323	19,280	1,532	1,546	1,464	1,466	1,542	4
Of which: standardized approach for counterparty credit risk (SA-CCR)	5	8,685	8,694	8,348	8,261	8,467	695	696	668	661	677	5
Of which: current exposure method (CEM)	6	—	—	—	—	—	—	—	—	—	—	n/a
Of which: internal model method (IMM)	7	—	—	—	—	—	—	—	—	—	—	6
Of which: other CCR ⁴	8	10,466	10,628	9,953	10,062	10,813	837	850	796	805	865	n/a
Equity positions in banking book under market-based approach	9	24,851	26,781	30,497	29,852	29,354	1,988	2,142	2,440	2,388	2,348	7
Equity investments in funds – look-through approach	10	1,876	1,821	1,609	1,841	2,070	150	145	129	147	166	8
Equity investments in funds – mandate-based approach	11	383	361	343	306	116	31	29	27	25	9	9
Equity investments in funds – fall-back approach	12	1,044	850	765	682	571	84	68	61	55	46	10
Settlement risk	13	98	33	78	39	62	8	3	6	3	5	11
Securitization exposures in banking book	14	17,205	15,088	14,063	13,017	12,222	1,376	1,207	1,125	1,041	978	12
Of which: grandfathered	15	—	—	—	—	—	—	—	—	—	—	12a
Of which: securitization internal ratings-based approach (SEC-IRBA)	16	1,015	659	695	722	720	81	52	56	58	58	13
Of which: securitization external ratings-based approach (SEC-ERBA), including internal assessment approach (IAA)	17	16,050	14,297	13,236	12,129	11,474	1,284	1,144	1,059	970	918	14
Of which: securitization standardized approach (SEC-SA)	18	140	132	132	166	28	11	11	10	13	2	15
Market risk	19	22,913	24,599	23,522	19,890	17,045	1,833	1,968	1,882	1,592	1,364	16
Of which: standardized approach (SA)	20	2,289	2,889	3,088	2,470	2,730	183	231	247	198	219	17
Of which: internal model approaches (IMA)	21	20,624	21,710	20,434	17,420	14,315	1,650	1,737	1,635	1,394	1,145	18
Operational risk	22	63,795	62,744	62,246	61,630	60,864	5,104	5,020	4,980	4,930	4,869	19
Of which: basic indicator approach	23	—	—	—	—	—	—	—	—	—	—	20
Of which: standardized approach	24	63,795	62,744	62,246	61,630	60,864	5,104	5,020	4,980	4,930	4,869	21
Of which: advanced measurement approach	25	—	—	—	—	—	—	—	—	—	—	22
Amounts below the thresholds for deduction (subject to 250% risk weight)	26	8,284	9,911	12,851	9,891	6,172	663	792	1,028	791	494	23
Floor adjustment	27	—	—	—	—	—	—	—	—	—	—	24
Total (lines 1+4+9+10+11+12+13+14+19+22+26+27)	28	\$ 517,048	\$ 495,706	\$ 488,991	\$ 470,852	\$ 460,270	\$ 41,365	\$ 39,656	\$ 39,119	\$ 37,668	\$ 36,822	25

¹ RWA includes 6% scalar when appropriate.

² Minimum capital requirements equal 8% of RWA.

³ Includes other assets and equities which use a regulatory prescribed risk weight.

⁴ Includes qualifying central counterparties (QCCPs), CVA and repo style transactions.

Flow Statements for Risk-Weighted Assets – Credit Risk

(\$ millions) As at	LINE #	2022 Q4				2022 Q3			
		Non-counterparty credit risk ¹	Of which internal ratings-based (IRB) approach ²	Counterparty credit risk ³	Of which IRB approach	Non-counterparty credit risk ¹	Of which internal ratings-based (IRB) approach ²	Counterparty credit risk ³	Of which IRB approach
RWA, balance at beginning of period	1	\$ 389,041	\$ 302,810	\$ 19,322	\$ 10,998	\$ 384,922	\$ 294,395	\$ 18,301	\$ 10,273
Asset size ⁴	2	5,456	7,771	(1,345)	(323)	8,814	11,044	1,162	915
Asset quality ⁵	3	1,955	1,955	424	151	(3,221)	(3,221)	—	(115)
Model updates ⁶	4	685	685	—	—	907	907	—	—
Methodology and policy ⁷	5	—	—	—	—	—	—	—	—
Acquisitions and disposals	6	—	—	—	—	—	—	—	—
Foreign exchange movements ⁸	7	14,991	11,070	750	397	(398)	(315)	(141)	(75)
Other ⁹	8	(939)	—	—	—	(1,983)	—	—	—
RWA, balance at end of period	9	\$ 411,189	\$ 324,291	\$ 19,151	\$ 11,223	\$ 389,041	\$ 302,810	\$ 19,322	\$ 10,998

		2022 Q2				2022 Q1			
		Non-counterparty credit risk ¹	Of which internal ratings-based (IRB) approach ²	Counterparty credit risk ³	Of which IRB approach	Non-counterparty credit risk ¹	Of which internal ratings-based (IRB) approach ²	Counterparty credit risk ³	Of which IRB approach
RWA, balance at beginning of period	10	\$ 371,009	\$ 286,114	\$ 18,323	\$ 10,385	\$ 363,081	\$ 281,617	\$ 19,280	\$ 11,158
Asset size ⁴	11	9,088	7,426	655	26	7,238	6,209	(1,140)	(912)
Asset quality ⁵	12	(659)	(659)	(629)	(118)	(9,143)	(8,785)	(91)	(18)
Model updates ⁶	13	—	—	—	—	1,782	2,622	—	—
Methodology and policy ⁷	14	—	—	—	—	—	—	—	—
Acquisitions and disposals	15	—	—	—	—	—	—	—	—
Foreign exchange movements ⁸	16	2,082	1,514	(48)	(20)	5,829	4,451	274	157
Other ⁹	17	3,402	—	—	—	2,222	—	—	—
RWA, balance at end of period	18	\$ 384,922	\$ 294,395	\$ 18,301	\$ 10,273	\$ 371,009	\$ 286,114	\$ 18,323	\$ 10,385

		2021 Q4			
		Non-counterparty credit risk ¹	Of which internal ratings-based (IRB) approach ²	Counterparty credit risk ³	Of which IRB approach
RWA, balance at beginning of period	19	\$ 368,634	\$ 288,208	\$ 20,097	\$ 11,025
Asset size ⁴	20	2,457	528	(60)	470
Asset quality ⁵	21	(5,355)	(5,355)	(573)	(233)
Model updates ⁶	22	(360)	(360)	—	—
Methodology and policy ⁷	23	—	—	—	—
Acquisitions and disposals	24	—	—	—	—
Foreign exchange movements ⁸	25	(1,806)	(1,404)	(184)	(104)
Other ⁹	26	(489)	—	—	—
RWA, balance at end of period	27	\$ 363,081	\$ 281,617	\$ 19,280	\$ 11,158

¹ Non-counterparty credit risk includes loans and advances to individuals and small business retail customers, wholesale and commercial corporate customers, and banks and governments, as well as holdings of debt, equity securities, and other assets including prepaid expenses, deferred income taxes, land, building, equipment, and other depreciable property.

² Reflects Pillar 3 requirements for RWA flow statements of credit risk exposures under IRB (CR8) which excludes securitization and equity.

³ CCR is comprised of over-the-counter (OTC) derivatives, repo-style transactions, trades cleared through central counterparties, and CVA RWA.

⁴ The Asset size category consists of organic changes in book size and composition (including new business and maturing loans), and for the fourth quarter of 2022, increased in various portfolios in the Canadian Personal and Commercial Banking, U.S. Retail, and Wholesale Banking segments.

⁵ The Asset quality category includes quality of book changes caused by experience such as underlying customer behaviour or demographics, including changes through model calibrations/realignments and in the fourth quarter of 2022, increased mainly due to various retail and non-retail portfolios in the Canadian Personal and Commercial Banking and U.S. Retail segments partially offset by Wholesale Banking segment.

⁶ The Model updates category relates to model implementation, changes in model scope, or any changes to address model malfunctions.

⁷ The Methodology and policy category impacts reflect newly adopted methodology changes to the calculations driven by regulatory policy changes, such as new regulations.

⁸ Foreign exchange movements mainly reflect a change in the U.S. dollar foreign exchange rate for the U.S. portfolios in the U.S. Retail and Wholesale Banking segments.

⁹ The Other category consists of items not described in the above categories, including changes in exposures not included under advanced or standardized methodologies, such as prepaid expenses, deferred income taxes, land, building, equipment and other depreciable property, and other assets.

Flow Statements for Risk-Weighted Assets – Market Risk

(\$ millions)

As at

RWA, balance at beginning of period

Movement in risk levels¹

Model updates/changes²

Methodology and policy³

Acquisitions and disposals⁴

Foreign exchange movements and other⁵

RWA, balance at end of period

LINE #	2022				2021 Q4
	Q4	Q3	Q2	Q1	
1	\$ 24,599	\$ 23,522	\$ 19,890	\$ 17,045	\$ 16,312
2	(1,686)	1,260	3,632	2,845	733
3	—	—	—	—	—
4	—	(183)	—	—	—
5	—	—	—	—	—
6	n/m ⁶	n/m	n/m	n/m	n/m
7	\$ 22,913	\$ 24,599	\$ 23,522	\$ 19,890	\$ 17,045

¹ The Movement in risk levels category reflects changes in risk due to position changes and market movements. The reduction in RWA was driven by changes in fixed income exposures, partially offset by increased market volatility.

² The Model updates category reflects updates to the model to reflect recent experience and change in model scope.

³ The Methodology and policy category reflects newly adopted methodology changes to the calculations driven by regulatory policy changes. Methodology changes related to the integration of a fixed income business into internal models provided an RWA offset.

⁴ The Acquisition and disposals category reflects changes due to business acquisitions or disposals.

⁵ Foreign exchange movements and other are deemed not meaningful (N/M) since RWA exposure measures are calculated in Canadian Dollars. Therefore, no foreign exchange translation is required.

⁶ Not meaningful.

Flow Statement for Risk-Weighted Assets – Operational Risk

(\$ millions)

As at

Disclosure for Operational Risk Risk-Weighted Assets Movement by Key Driver

RWA, balance at beginning of period

Revenue generation¹

Acquisitions and disposals

RWA, balance at end of period

LINE #	2022				2021 Q4
	Q4	Q3	Q2	Q1	
1	\$ 62,744	\$ 62,246	\$ 61,630	\$ 60,864	\$ 60,410
2	1,051	498	616	766	454
3	—	—	—	—	—
4	\$ 63,795	\$ 62,744	\$ 62,246	\$ 61,630	\$ 60,864

¹ The movement in Revenue generation category is due to a change in the three-year average of annual gross income used in The Standardized Approach (TSA).

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

(\$ millions) As at		LINE #	2022 Q4						
			Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation ²	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 ¹ Not subject to capital requirements or subject to deduction from capital
Assets									
Cash and due from banks	1	\$	8,556	\$ 8,548	\$ 8,898	\$ -	\$ -	\$ -	\$ (350)
Interest-bearing deposits with banks	2		137,294	137,160	136,738	-	-	422	-
Trading loans, securities, and other	3		143,726	143,726	-	-	-	142,294	1,432
Non-trading financial assets at fair value through profit or loss	4		10,946	10,370	2,206	-	8,876	-	(712)
Derivatives	5		103,873	103,872	-	103,872	-	98,305	-
Financial assets designated at fair value through profit or loss	6		5,039	1,663	1,878	-	-	-	(215)
Financial assets at fair value through other comprehensive income	7		69,675	66,572	61,418	-	3,979	-	1,175
Debt securities at amortized cost, net of allowance for credit losses	8		342,774	342,733	276,022	-	67,123	-	(412)
Securities purchased under reverse repurchase agreements	9		160,167	160,167	-	160,167	-	7,770	-
Residential mortgages	10		293,924	293,924	294,541	-	-	-	(617)
Consumer instalment and other personal	11		206,152	206,152	206,503	-	-	-	(351)
Credit card	12		36,010	36,010	31,850	-	3,202	-	958
Business and government	13		301,389	301,389	281,721	-	21,295	-	(1,627)
Allowance for loan losses	14		(6,432)	(6,432)	(2)	-	-	-	(6,430)
Customers' liability under acceptances	15		19,733	19,733	19,733	-	-	-	-
Investment in Schwab	16		8,088	8,088	8,088	-	-	-	-
Goodwill	17		17,656	17,656	-	-	-	-	17,656
Other intangibles	18		2,303	2,303	-	-	-	-	2,303
Land, buildings, equipment, and other depreciable assets	19		9,400	9,284	9,284	-	-	-	-
Deferred tax assets	20		2,193	2,121	1,773	-	-	-	348
Amounts receivable from brokers, dealers and clients	21		19,760	19,760	1,062	-	-	-	18,698
Other assets	22		25,302	22,856	8,545	12,338	266	-	1,707
Total assets	23	\$	1,917,528	\$ 1,907,655	\$ 1,350,258	\$ 276,377	\$ 104,741	\$ 248,791	\$ 33,563
Liabilities									
Trading deposits	24	\$	23,805	\$ 23,805	\$ -	\$ -	\$ -	\$ 22,962	\$ 843
Derivatives	25		91,133	91,133	-	91,133	-	86,727	-
Securitization liabilities at fair value	26		12,612	12,612	-	-	-	12,612	-
Financial liabilities designated at fair value through profit or loss	27		162,786	162,786	-	-	-	3	162,783
Deposits	28		1,229,970	1,229,970	-	-	-	-	1,229,970
Acceptances	29		19,733	19,733	-	-	-	-	19,733
Obligations related to securities sold short	30		45,505	45,505	-	-	-	44,427	1,078
Obligations related to securities sold under repurchase agreements	31		128,024	128,024	-	128,024	-	9,206	-
Securitization liabilities at amortized cost	32		15,072	15,072	-	-	-	-	15,072
Amounts payable to brokers, dealers, and clients	33		25,195	25,195	-	-	-	-	25,195
Insurance-related liabilities	34		7,468	15	-	-	-	-	15
Other liabilities	35		33,552	31,132	-	-	-	-	31,132
Subordinated notes and debentures	36		11,290	11,290	-	-	-	-	11,290
Total liabilities	37	\$	1,806,145	\$ 1,796,272	\$ -	\$ 219,157	\$ -	\$ 175,937	\$ 1,497,111

¹ Certain exposures may be included in more than one column if subject to both credit and market risk.

² Excludes assets and liabilities of insurance subsidiaries.

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

(\$ millions) As at	LINE #	2022 Q4				
		Items subject to				
		Total	Credit risk framework	Counterparty credit risk framework ¹	Securitization framework	Market risk framework
Asset carrying value amount under scope of regulatory consolidation	1	\$ 1,980,167	\$ 1,350,258	\$ 276,377	\$ 104,741	\$ 248,791
Liabilities carrying value amount under regulatory scope of consolidation	2	395,094	–	219,157	–	175,937
Total net amount under regulatory scope of consolidation	3	1,585,073	1,350,258	57,220	104,741	72,854
Off-balance sheet amounts	4	387,761	364,869	–	22,892	–
Differences due to different netting rules, other than those already included in line 2	5	82,101	–	82,101	–	–
Adjustment for derivatives and PFE	6	73,914	–	73,914	–	–
Gross up for repo-style transactions	7	256,048	–	256,048	–	–
Exposure amounts considered for regulatory purposes	8	\$ 2,384,897	\$ 1,715,127	\$ 469,283	\$ 127,633	\$ 72,854

¹ Collateral for repo-style transactions is reflected in the loss given default (LGD) as opposed to exposure at default (EAD).

Credit Quality of Assets (CR1)^{1,2}

(\$ millions) As at		LINE #	2022 Q4						
			Gross carrying values of:			Of which ECL accounting provisions for credit losses on SA exposures:		Of which ECL accounting provisions for credit losses on IRB exposures:	Net values
			Defaulted exposures ³	Non-defaulted exposures	Allowances/ impairments ⁴	Allocated in regulatory category of Specific ⁵	Allocated in regulatory category of General ⁵		
Loans		1	\$ 2,503	\$ 832,001	\$ (6,427)	\$ (3)	\$ (11)	\$ (6,413)	\$ 828,077
Debt securities		2	–	334,568	(1)	–	–	(1)	334,567
Off-balance sheet exposures		3	116	603,014	(931)	–	–	(931)	602,199
Total		4	\$ 2,619	\$ 1,769,583	\$ (7,359)	\$ (3)	\$ (11)	\$ (7,345)	\$ 1,764,843
			2022 Q3						
			Gross carrying values of:			Of which ECL accounting provisions for credit losses on SA exposures:		Of which ECL accounting provisions for credit losses on IRB exposures:	Net values
			Defaulted exposures ³	Non-defaulted exposures	Allowances/ impairments ⁴	Allocated in regulatory category of Specific ⁵	Allocated in regulatory category of General ⁵		
Loans		5	\$ 2,332	\$ 801,690	\$ (6,036)	\$ (3)	\$ (12)	\$ (6,021)	\$ 797,986
Debt securities		6	–	326,119	(2)	–	–	(2)	326,117
Off-balance sheet exposures		7	57	571,823	(875)	–	–	(875)	571,005
Total		8	\$ 2,389	\$ 1,699,632	\$ (6,913)	\$ (3)	\$ (12)	\$ (6,898)	\$ 1,695,108
			2022 Q2						
			Gross carrying values of:			Of which ECL accounting provisions for credit losses on SA exposures:		Of which ECL accounting provisions for credit losses on IRB exposures:	Net values
			Defaulted exposures ³	Non-defaulted exposures	Allowances/ impairments ⁴	Allocated in regulatory category of Specific ⁵	Allocated in regulatory category of General ⁵		
Loans		9	\$ 2,397	\$ 777,967	\$ (6,073)	\$ (3)	\$ (10)	\$ (6,060)	\$ 774,291
Debt securities		10	–	314,108	(1)	–	–	(1)	314,107
Off-balance sheet exposures		11	55	561,836	(834)	–	–	(834)	561,057
Total		12	\$ 2,452	\$ 1,653,911	\$ (6,908)	\$ (3)	\$ (10)	\$ (6,895)	\$ 1,649,455
			2022 Q1						
			Gross carrying values of:			Of which ECL accounting provisions for credit losses on SA exposures:		Of which ECL accounting provisions for credit losses on IRB exposures:	Net values
			Defaulted exposures ³	Non-defaulted exposures	Allowances/ impairments ⁴	Allocated in regulatory category of Specific ⁵	Allocated in regulatory category of General ⁵		
Loans		13	\$ 2,560	\$ 754,298	\$ (6,235)	\$ –	\$ (9)	\$ (6,226)	\$ 750,623
Debt securities		14	–	304,522	(2)	–	–	(2)	304,520
Off-balance sheet exposures		15	59	548,573	(902)	–	–	(902)	547,730
Total		16	\$ 2,619	\$ 1,607,393	\$ (7,139)	\$ –	\$ (9)	\$ (7,130)	\$ 1,602,873

¹ Excludes insurance subsidiaries, securitization exposures, assets at fair value through profit or loss (FVTPL), and acquired credit-impaired (ACI) loans.

² Restructured exposures as at October 31, 2022 are \$762 million, of which \$370 million is considered impaired. This excludes exposures related to the COVID-19 deferral program.

³ Includes total impaired exposures, of which \$1,470 million (July 31, 2022 – \$1,395 million; April 30, 2022 – \$1,471 million; January 31, 2022 – \$1,422 million) is in the default category and \$1,033 million as at October 31, 2022 (July 31, 2022 – \$937 million; April 30, 2022 – \$926 million; January 31, 2022 – \$1,138 million) is in the high risk/watch and classified categories.

⁴ Includes Stage 1, 2, and 3 allowances.

⁵ Specific consists of Stage 3 expected credit loss allowances. General consists of Stage 1 and Stage 2 expected credit loss allowances.

Credit Quality of Assets (CR1) (Continued)¹

(\$ millions) As at	LINE #	2021 Q4						
		Gross carrying values of:			Of which ECL accounting provisions for credit losses on SA exposures:		Of which ECL accounting provisions for credit losses on IRB exposures:	Net values
		Defaulted exposures ²	Non-defaulted exposures	Allowances/ impairments ³	Allocated in regulatory category of Specific ⁴	Allocated in regulatory category of General ⁴		
Loans	1	\$ 2,411	\$ 734,264	\$ (6,384)	\$ (1)	\$ (9)	\$ (6,374)	\$ 730,291
Debt securities	2	—	285,534	(2)	—	—	(2)	285,532
Off-balance sheet exposures	3	86	536,850	(856)	—	—	(856)	536,080
Total	4	\$ 2,497	\$ 1,556,648	\$ (7,242)	\$ (1)	\$ (9)	\$ (7,232)	\$ 1,551,903

¹ Excludes insurance subsidiaries, securitization exposures, assets at FVTPL, and ACI loans.

² Includes total impaired exposures of which \$1,547 million is in the default category and \$864 million as at October 31, 2021 is in the high risk/watch and classified categories.

³ Includes Stage 1, 2, and 3 allowances.

⁴ Specific consists of Stage 3 expected credit loss allowances. General consists of Stage 1 and Stage 2 expected credit loss allowances.

Credit Risk Mitigation Techniques – Overview (CR3)¹

(\$ millions) As at		LINE #	2022 Q4					2022 Q3				
			Exposures unsecured carrying amount	Exposures secured	Exposures secured by collateral ²	Exposures secured by financial guarantees	Exposures secured by credit derivatives ³	Exposures unsecured carrying amount	Exposures secured	Exposures secured by collateral ²	Exposures secured by financial guarantees	Exposures secured by credit derivatives ³
Loans		1	\$ 293,540	\$ 540,964	\$ 444,970	\$ 95,987	\$ 7	\$ 278,065	\$ 525,957	\$ 429,593	\$ 96,358	\$ 6
Debt securities		2	333,276	1,292	–	–	1,292	324,857	1,262	–	–	1,262
Total		3	\$ 626,816	\$ 542,256	\$ 444,970	\$ 95,987	\$ 1,299	\$ 602,922	\$ 527,219	\$ 429,593	\$ 96,358	\$ 1,268
<i>Of which: defaulted</i>		4	<i>1,248</i>	<i>1,255</i>	<i>1,105</i>	<i>150</i>	<i>–</i>	<i>1,176</i>	<i>1,156</i>	<i>1,008</i>	<i>148</i>	<i>–</i>
			2022 Q2					2022 Q1				
			Exposures unsecured carrying amount	Exposures secured	Exposures secured by collateral ²	Exposures secured by financial guarantees	Exposures secured by credit derivatives ³	Exposures unsecured carrying amount	Exposures secured	Exposures secured by collateral ²	Exposures secured by financial guarantees	Exposures secured by credit derivatives ³
Loans		5	\$ 265,105	\$ 515,259	\$ 415,538	\$ 99,691	\$ 30	\$ 249,986	\$ 506,872	\$ 404,199	\$ 102,643	\$ 30
Debt securities		6	312,574	1,534	–	–	1,534	303,013	1,509	–	–	1,509
Total		7	\$ 577,679	\$ 516,793	\$ 415,538	\$ 99,691	\$ 1,564	\$ 552,999	\$ 508,381	\$ 404,199	\$ 102,643	\$ 1,539
<i>Of which: defaulted</i>		8	<i>1,205</i>	<i>1,192</i>	<i>1,022</i>	<i>170</i>	<i>–</i>	<i>1,296</i>	<i>1,264</i>	<i>1,075</i>	<i>189</i>	<i>–</i>
			2021 Q4									
			Exposures unsecured carrying amount	Exposures secured	Exposures secured by collateral ²	Exposures secured by financial guarantees	Exposures secured by credit derivatives ³					
Loans		9	\$ 239,952	\$ 496,723	\$ 391,151	\$ 105,540	\$ 32					
Debt securities		10	283,815	1,719	–	3	1,716					
Total		11	\$ 523,767	\$ 498,442	\$ 391,151	\$ 105,543	\$ 1,748					
<i>Of which: defaulted</i>		12	<i>1,196</i>	<i>1,215</i>	<i>1,014</i>	<i>201</i>	<i>–</i>					

¹ Represent collateral, financial guarantees, and credit derivatives only when such result in reduced capital requirements.

² For retail exposures reflects collateral as at origination and for non-retail only reflects financial collateral.

³ As at October 31, 2022, the impact to RWA from credit derivatives used as CRM techniques is a decrease of \$0.8 billion (July 31, 2022 – a decrease of \$0.8 billion; April 30, 2022 – a decrease of \$0.9 billion; January 31, 2022 – a decrease of \$1.1 billion; October 31, 2021 – a decrease of \$1.2 billion) (CR7).

Gross Credit Risk Exposures¹

(\$ millions) As at	LINE #	2022 Q4						2022 Q3					
		Drawn	Undrawn ²	Repo-style transactions	OTC derivatives	Other off-balance sheet	Total	Drawn	Undrawn ²	Repo-style transactions	OTC derivatives	Other off-balance sheet	Total
By Counterparty Type													
Retail													
Residential secured	1	\$ 418,204	\$ 64,683	\$ –	\$ –	\$ –	\$ 482,887	\$ 410,451	\$ 62,478	\$ –	\$ –	\$ –	\$ 472,929
Qualifying revolving retail	2	40,687	126,035	–	–	–	166,722	40,828	122,657	–	–	–	163,485
Other retail	3	88,145	7,969	–	–	43	96,157	85,381	7,793	–	–	40	93,214
	4	547,036	198,687	–	–	43	745,766	536,660	192,928	–	–	40	729,628
Non-retail													
Corporate	5	280,448	124,549	244,164	27,319	21,471	697,951	262,748	115,037	229,285	25,419	20,827	653,316
Sovereign	6	444,791	1,323	32,429	27,269	1,722	507,534	429,296	1,633	34,542	20,193	1,619	487,283
Bank	7	35,495	7,561	84,245	16,132	7,546	150,979	33,969	7,012	88,074	16,453	6,774	152,282
	8	760,734	133,433	360,838	70,720	30,739	1,356,464	726,013	123,682	351,901	62,065	29,220	1,292,881
Total	9	\$ 1,307,770	\$ 332,120	\$ 360,838	\$ 70,720	\$ 30,782	\$ 2,102,230	\$ 1,262,673	\$ 316,610	\$ 351,901	\$ 62,065	\$ 29,260	\$ 2,022,509
By Country of Risk													
Canada	10	\$ 689,516	\$ 162,059	\$ 131,833	\$ 18,845	\$ 9,461	\$ 1,011,714	\$ 680,863	\$ 159,857	\$ 120,759	\$ 17,088	\$ 9,712	\$ 988,279
United States	11	539,447	164,139	121,344	21,751	19,790	866,471	514,876	150,810	115,931	17,332	17,628	816,577
Other International													
Europe	12	55,444	4,936	72,961	18,231	1,183	152,755	46,540	4,901	84,944	18,246	1,281	155,912
Other	13	23,363	986	34,700	11,893	348	71,290	20,394	1,042	30,267	9,399	639	61,741
	14	78,807	5,922	107,661	30,124	1,531	224,045	66,934	5,943	115,211	27,645	1,920	217,653
Total	15	\$ 1,307,770	\$ 332,120	\$ 360,838	\$ 70,720	\$ 30,782	\$ 2,102,230	\$ 1,262,673	\$ 316,610	\$ 351,901	\$ 62,065	\$ 29,260	\$ 2,022,509
By Residual Contractual Maturity													
Within 1 year	16	\$ 440,422	\$ 229,085	\$ 360,059	\$ 38,723	\$ 14,069	\$ 1,082,358	\$ 412,274	\$ 221,442	\$ 351,156	\$ 38,957	\$ 14,795	\$ 1,038,624
Over 1 year to 5 years	17	555,058	101,632	776	21,040	15,970	694,476	542,618	94,131	745	15,199	13,715	666,408
Over 5 years	18	312,290	1,403	3	10,957	743	325,396	307,781	1,037	–	7,909	750	317,477
Total	19	\$ 1,307,770	\$ 332,120	\$ 360,838	\$ 70,720	\$ 30,782	\$ 2,102,230	\$ 1,262,673	\$ 316,610	\$ 351,901	\$ 62,065	\$ 29,260	\$ 2,022,509
Non-Retail Exposures by Industry Sector													
Real estate													
Residential	20	\$ 36,172	\$ 4,830	\$ 4	\$ 44	\$ 2,119	\$ 43,169	\$ 35,543	\$ 3,949	\$ 3	\$ 97	\$ 2,013	\$ 41,605
Non-residential	21	50,699	10,888	13	184	655	62,439	45,125	8,548	9	367	568	54,617
Total real-estate	22	86,871	15,718	17	228	2,774	105,608	80,668	12,497	12	464	2,581	96,222
Agriculture	23	9,620	523	12	152	22	10,329	9,457	431	12	67	23	9,990
Automotive	24	12,119	8,152	13	1,003	326	21,613	11,391	7,606	11	692	275	19,975
Financial	25	64,413	18,991	326,199	30,205	3,482	443,290	60,214	17,479	313,910	29,191	3,363	424,157
Food, beverage, and tobacco	26	7,106	5,895	–	1,687	458	15,146	7,030	5,513	6	1,573	398	14,520
Forestry	27	1,131	1,147	–	27	94	2,399	1,219	995	–	19	91	2,324
Government, public sector entities, and education	28	465,491	6,930	32,541	27,551	6,454	538,967	447,961	6,433	34,778	20,485	5,845	515,502
Health and social services	29	23,599	4,320	202	62	2,894	31,077	22,415	3,827	257	80	2,626	29,205
Industrial construction and trade contractors	30	5,965	2,242	1	10	1,027	9,245	5,871	2,054	40	17	976	8,958
Metals and mining	31	4,221	4,583	126	608	905	10,443	4,216	4,187	226	480	856	9,965
Oil and gas	32	4,466	7,741	110	2,257	1,164	15,738	3,869	7,757	1,336	3,253	1,296	17,511
Power and utilities	33	13,296	16,554	12	2,036	5,090	36,988	11,772	16,179	11	1,354	5,936	35,252
Professional and other services	34	19,324	11,305	954	517	1,655	33,755	18,634	10,386	859	346	1,244	31,469
Retail sector	35	8,350	3,842	160	208	305	12,865	8,072	3,921	141	226	304	12,664
Sundry manufacturing and wholesale	36	13,225	11,284	174	773	1,006	26,462	12,803	10,819	93	761	879	25,355
Telecommunications, cable, and media	37	6,852	7,991	156	1,508	501	17,008	6,046	7,949	–	1,220	461	15,676
Transportation	38	8,405	3,146	1	1,127	1,884	14,563	7,940	2,921	1	952	1,560	13,374
Other	39	6,280	3,069	160	761	698	10,968	6,435	2,728	208	885	506	10,762
Total	40	\$ 760,734	\$ 133,433	\$ 360,838	\$ 70,720	\$ 30,739	\$ 1,356,464	\$ 726,013	\$ 123,682	\$ 351,901	\$ 62,065	\$ 29,220	\$ 1,292,881

¹ Gross credit risk exposure is before credit risk mitigants. This table excludes securitization, equity, and other credit RWA.

² Gross exposure on undrawn commitments is EAD which is the amount currently undrawn but expected to be drawn assuming a default on the underlying committed loan agreement.

Gross Credit Risk Exposures (Continued)¹

(\$ millions) As at		LINE #	2022 Q2						2022 Q1					
By Counterparty Type			Drawn	Undrawn ²	Repo-style transactions	OTC derivatives	Other off-balance sheet	Total	Drawn	Undrawn ²	Repo-style transactions	OTC derivatives	Other off-balance sheet	Total
Retail														
Residential secured		1	\$ 398,356	\$ 60,907	\$ –	\$ –	\$ –	\$ 459,263	\$ 388,250	\$ 59,082	\$ –	\$ –	\$ –	\$ 447,332
Qualifying revolving retail		2	39,001	119,957	–	–	–	158,958	38,399	117,437	–	–	–	155,836
Other retail		3	86,047	7,799	–	–	37	93,883	85,106	7,786	–	–	31	92,923
		4	523,404	188,663	–	–	37	712,104	511,755	184,305	–	–	31	696,091
Non-retail														
Corporate		5	249,464	114,076	240,550	29,279	20,648	654,017	239,505	110,497	251,453	23,486	20,014	644,955
Sovereign		6	418,254	1,553	42,775	19,655	1,730	483,967	446,898	1,560	49,076	15,476	1,742	514,752
Bank		7	29,531	6,343	87,797	16,868	6,184	146,723	27,546	6,120	75,815	16,924	6,449	132,854
		8	697,249	121,972	371,122	65,802	28,562	1,284,707	713,949	118,177	376,344	55,886	28,205	1,292,561
Total		9	\$ 1,220,653	\$ 310,635	\$ 371,122	\$ 65,802	\$ 28,599	\$ 1,996,811	\$ 1,225,704	\$ 302,482	\$ 376,344	\$ 55,886	\$ 28,236	\$ 1,988,652
By Country of Risk														
Canada		10	\$ 670,255	\$ 161,327	\$ 141,102	\$ 19,397	\$ 9,728	\$ 1,001,809	\$ 672,318	\$ 158,260	\$ 148,724	\$ 16,686	\$ 9,612	\$ 1,005,600
United States		11	478,058	142,984	110,105	16,939	17,023	765,109	480,034	138,056	112,085	15,426	16,680	762,281
Other International														
Europe		12	51,687	5,261	90,405	18,327	1,194	166,874	54,222	5,187	85,597	16,212	1,284	162,502
Other		13	20,653	1,063	29,510	11,139	654	63,019	19,130	979	29,938	7,562	660	58,269
		14	72,340	6,324	119,915	29,466	1,848	229,893	73,352	6,166	115,535	23,774	1,944	220,771
Total		15	\$ 1,220,653	\$ 310,635	\$ 371,122	\$ 65,802	\$ 28,599	\$ 1,996,811	\$ 1,225,704	\$ 302,482	\$ 376,344	\$ 55,886	\$ 28,236	\$ 1,988,652
By Residual Contractual Maturity														
Within 1 year		16	\$ 377,797	\$ 219,181	\$ 370,834	\$ 43,435	\$ 15,274	\$ 1,026,521	\$ 404,607	\$ 212,540	\$ 375,753	\$ 37,019	\$ 13,324	\$ 1,043,243
Over 1 year to 5 years		17	540,028	90,488	288	14,632	12,944	658,380	537,408	88,962	441	12,199	14,475	653,485
Over 5 years		18	302,828	966	–	7,735	381	311,910	283,689	980	150	6,668	437	291,924
Total		19	\$ 1,220,653	\$ 310,635	\$ 371,122	\$ 65,802	\$ 28,599	\$ 1,996,811	\$ 1,225,704	\$ 302,482	\$ 376,344	\$ 55,886	\$ 28,236	\$ 1,988,652
Non-Retail Exposures by Industry Sector														
Real estate														
Residential		20	\$ 34,807	\$ 3,498	\$ 2	\$ 76	\$ 1,846	\$ 40,229	\$ 34,107	\$ 3,267	\$ 4	\$ 227	\$ 1,860	\$ 39,465
Non-residential		21	43,911	7,441	10	316	617	52,295	42,664	7,096	16	846	598	51,220
Total real-estate		22	78,718	10,939	12	392	2,463	92,524	76,771	10,363	20	1,073	2,458	90,685
Agriculture		23	9,528	295	5	86	32	9,946	9,250	431	6	66	26	9,779
Automotive		24	10,726	8,093	4	522	266	19,611	9,936	8,156	10	471	171	18,744
Financial		25	51,275	17,490	325,887	34,527	3,382	432,561	48,810	17,057	324,082	29,210	3,256	422,415
Food, beverage, and tobacco		26	6,433	5,052	6	1,068	482	13,041	5,735	4,826	6	1,024	524	12,115
Forestry		27	1,262	992	–	67	89	2,410	1,142	1,092	–	8	96	2,338
Government, public sector entities, and education		28	436,860	6,431	42,996	20,253	5,621	512,161	464,270	6,459	49,359	16,010	5,964	542,062
Health and social services		29	22,328	3,900	231	82	2,755	29,296	21,276	4,189	317	168	2,733	28,683
Industrial construction and trade contractors		30	6,162	1,983	1	15	992	9,153	5,552	1,930	10	29	982	8,503
Metals and mining		31	3,948	4,189	208	531	1,008	9,884	3,645	3,974	246	430	932	9,227
Oil and gas		32	3,861	7,702	975	2,138	1,125	15,801	4,326	6,987	880	2,516	1,173	15,882
Power and utilities		33	9,180	15,938	14	1,928	5,635	32,695	8,398	15,130	12	1,192	5,217	29,949
Professional and other services		34	17,139	10,850	131	348	1,152	29,620	16,026	9,228	410	394	957	27,015
Retail sector		35	7,505	4,146	138	186	313	12,288	7,246	4,252	128	238	295	12,159
Sundry manufacturing and wholesale		36	10,935	10,548	201	757	711	23,152	9,829	10,062	518	519	950	21,878
Telecommunications, cable, and media		37	5,964	7,688	162	1,025	448	15,287	5,822	8,121	171	890	445	15,449
Transportation		38	9,252	3,022	52	943	1,589	14,858	9,051	3,130	66	835	1,487	14,569
Other		39	6,173	2,714	99	934	499	10,419	6,864	2,790	103	813	539	11,109
Total		40	\$ 697,249	\$ 121,972	\$ 371,122	\$ 65,802	\$ 28,562	\$ 1,284,707	\$ 713,949	\$ 118,177	\$ 376,344	\$ 55,886	\$ 28,205	\$ 1,292,561

¹ Gross credit risk exposure is before credit risk mitigants. This table excludes securitization, equity, and other credit RWA.

² Gross exposure on undrawn commitments is EAD which is the amount currently undrawn but expected to be drawn assuming a default on the underlying committed loan agreement.

Gross Credit Risk Exposures (Continued)¹

(\$ millions) As at	LINE #	2021 Q4					
By Counterparty Type		Drawn	Undrawn ²	Repo-style transactions	OTC derivatives	Other off- balance sheet	Total
Retail							
Residential secured	1	\$ 379,770	\$ 57,697	\$ —	\$ —	\$ —	437,467
Qualifying revolving retail	2	37,571	113,435	—	—	—	151,006
Other retail	3	84,460	7,771	—	—	31	92,262
	4	501,801	178,903	—	—	31	680,735
Non-retail							
Corporate	5	227,250	107,797	254,103	23,163	19,393	631,706
Sovereign	6	420,834	1,203	34,041	12,913	1,681	470,672
Bank	7	26,855	6,718	80,196	16,732	6,022	136,523
	8	674,939	115,718	368,340	52,808	27,096	1,238,901
Total	9	\$ 1,176,740	\$ 294,621	\$ 368,340	\$ 52,808	\$ 27,127	\$ 1,919,636
By Country of Risk							
Canada	10	\$ 650,644	\$ 156,408	\$ 138,030	\$ 16,209	\$ 10,071	\$ 971,362
United States	11	460,439	131,467	114,503	14,972	15,539	736,920
Other International							
Europe	12	45,450	5,921	91,147	15,146	1,249	158,913
Other	13	20,207	825	24,660	6,481	268	52,441
	14	65,657	6,746	115,807	21,627	1,517	211,354
Total	15	\$ 1,176,740	\$ 294,621	\$ 368,340	\$ 52,808	\$ 27,127	\$ 1,919,636
By Residual Contractual Maturity							
Within 1 year	16	\$ 387,549	\$ 208,460	\$ 368,046	\$ 34,629	\$ 13,090	\$ 1,011,774
Over 1 year to 5 years	17	528,460	85,197	294	11,632	12,986	638,569
Over 5 years	18	260,731	964	—	6,547	1,051	269,293
Total	19	\$ 1,176,740	\$ 294,621	\$ 368,340	\$ 52,808	\$ 27,127	\$ 1,919,636
Non-Retail Exposures by Industry Sector							
Real estate	20	\$ 32,484	\$ 3,455	\$ 3	\$ 315	\$ 1,797	\$ 38,054
Residential	21	41,649	6,546	18	1,059	600	49,872
Non-residential							
Total real-estate	22	74,133	10,001	21	1,374	2,397	87,926
Agriculture	23	8,791	362	5	46	26	9,230
Automotive	24	8,212	8,216	17	540	152	17,137
Financial	25	45,545	16,850	330,985	28,380	2,979	424,739
Food, beverage, and tobacco	26	5,481	4,786	7	1,025	518	11,817
Forestry	27	944	1,056	—	10	126	2,136
Government, public sector entities, and education	28	437,856	6,313	34,326	13,388	5,568	497,451
Health and social services	29	21,021	4,056	345	209	2,657	28,288
Industrial construction and trade contractors	30	5,613	1,842	2	36	936	8,429
Metals and mining	31	3,333	3,933	294	250	939	8,749
Oil and gas	32	3,935	6,708	1,258	2,794	869	15,564
Power and utilities	33	8,813	13,992	18	1,055	5,168	29,046
Professional and other services	34	15,086	8,807	203	519	1,063	25,678
Retail sector	35	7,302	4,026	114	239	266	11,947
Sundry manufacturing and wholesale	36	8,548	9,903	289	521	674	19,935
Telecommunications, cable, and media	37	4,464	8,233	169	752	559	14,177
Transportation	38	9,650	3,963	96	774	1,459	15,942
Other	39	6,212	2,671	191	896	740	10,710
Total	40	\$ 674,939	\$ 115,718	\$ 368,340	\$ 52,808	\$ 27,096	\$ 1,238,901

¹ Gross credit risk exposure is before credit risk mitigants. This table excludes securitization, equity, and other credit RWA.

² Gross exposure on undrawn commitments is EAD which is the amount currently undrawn but expected to be drawn assuming a default on the underlying committed loan agreement.

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

(\$ millions) As at		LINE #	2022 Q4						2022 Q3							
			Exposures before CCF ² and CRM		Exposures post-CCF and CRM		RWA ³	RWA density ⁴	Exposures before CCF and CRM		Exposures post-CCF and CRM		RWA ³	RWA density ⁴		
			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				
Asset classes																
Corporate		1	\$ 2,191	\$ 426	\$ 2,191	\$ 14	\$ 1,698	77.01	%	\$ 2,539	\$ 456	\$ 2,539	\$ 15	\$ 1,690	66.17	%
Sovereign		2	1	—	1	—	—	—		1	—	1	—	—	—	
Bank		3	646	—	646	—	129	19.97		599	—	599	—	120	20.03	
Retail residential mortgages		4	3,951	2,201	3,951	1,038	2,968	59.49		3,726	2,195	3,726	1,025	2,886	60.75	
Other retail		5	2,997	5,609	2,997	235	1,943	60.12		2,976	5,456	2,976	208	1,888	59.30	
Equity		6	5,000	3,433	5,000	1,716	4,611	68.66		4,681	3,128	4,681	1,564	4,270	68.37	
Other assets ⁵		7	27,631	—	27,631	—	21,808	78.93		24,768	—	24,768	—	20,532	82.90	
Total		8	\$ 42,417	\$ 11,669	\$ 42,417	\$ 3,003	\$ 33,157	73.00	%	\$ 39,290	\$ 11,235	\$ 39,290	\$ 2,812	\$ 31,386	74.55	%
			2022 Q2						2022 Q1							
			Exposures before CCF and CRM		Exposures post-CCF and CRM		RWA ³	RWA density ⁴	Exposures before CCF and CRM		Exposures post-CCF and CRM		RWA ³	RWA density ⁴		
			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				
Asset classes																
Corporate		9	\$ 3,194	\$ 414	\$ 3,194	\$ 16	\$ 1,715	53.43	%	\$ 3,674	\$ 352	\$ 3,674	\$ —	\$ 1,242	33.81	%
Sovereign		10	1	—	1	—	—	—		1	—	1	—	—	—	
Bank		11	814	—	814	—	163	20.02		489	—	489	—	98	20.04	
Retail residential mortgages		12	3,508	1,962	3,508	913	2,717	61.46		3,597	1,782	3,597	840	2,755	62.09	
Other retail		13	3,194	5,409	3,194	191	1,951	57.64		3,315	4,882	3,315	147	1,946	56.21	
Equity		14	4,670	2,944	4,670	1,472	4,173	67.94		4,681	2,828	4,681	1,414	4,120	67.60	
Other assets ⁵		15	24,241	—	24,241	—	19,602	80.86		25,225	—	25,225	—	19,106	75.74	
Total		16	\$ 39,622	\$ 10,729	\$ 39,622	\$ 2,592	\$ 30,321	71.83	%	\$ 40,982	\$ 9,844	\$ 40,982	\$ 2,401	\$ 29,267	67.46	%
			2021 Q4													
			Exposures before CCF and CRM		Exposures post-CCF and CRM		RWA ³	RWA density ⁴								
			On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount			On-balance sheet amount	Off-balance sheet amount						
Asset classes																
Corporate		17	\$ 6,066	\$ 333	\$ 6,066	\$ —	\$ 1,980	32.64	%							
Sovereign		18	1	—	1	—	—	—								
Bank		19	519	—	519	—	104	20.04								
Retail residential mortgages		20	3,571	1,663	3,571	752	2,675	61.88								
Other retail		21	3,220	4,831	3,220	147	1,933	57.41								
Equity		22	4,475	2,626	4,475	1,314	3,862	66.71								
Other assets ⁵		23	25,573	—	25,573	—	20,343	79.55								
Total		24	\$ 43,425	\$ 9,453	\$ 43,425	\$ 2,213	\$ 30,897	67.70	%							

¹ Excludes securitization and CCR.

² Credit conversion factor.

³ RWA calculated on post-CCF and post-CRM exposures.

⁴ Total RWA as a percentage of post-CCF and post-CRM exposures.

⁵ Excludes exposures subject to direct capital deductions and threshold deductions.

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

(\$ millions) As at		LINE #	2022 Q4								2022 Q3							
			Risk-weight							Total credit exposures amount (post-CCF and post-CRM)	Risk-weight							Total credit exposures amount (post-CCF and post-CRM)
			0%	20%	35%	75%	100%	150%	Other		0%	20%	35%	75%	100%	150%	Other	
Asset classes																		
Corporate	1		\$ 506	\$ –	\$ –	\$ –	\$ 1,699	\$ –	\$ –	\$ 2,205	\$ 863	\$ –	\$ –	\$ –	\$ 1,690	\$ 1	\$ –	\$ 2,554
Sovereign	2		–	1	–	–	–	–	–	1	–	1	–	–	–	–	–	1
Bank	3		–	646	–	–	–	–	–	646	–	599	–	–	–	–	–	599
Retail residential mortgages	4		–	–	1,944	3,031	14	–	–	4,989	–	–	1,701	3,037	13	–	–	4,751
Other retail	5		422	376	–	2,377	–	57	–	3,232	477	342	–	2,305	–	60	–	3,184
Equity	6		2,190	219	–	–	4,307	–	–	6,716	2,061	195	–	–	3,989	–	–	6,245
Other assets ²	7		7,485	–	–	–	20,001	–	145	27,631	5,830	–	–	–	18,799	–	139	24,768
Total	8		\$ 10,603	\$ 1,242	\$ 1,944	\$ 5,408	\$ 26,021	\$ 57	\$ 145	\$ 45,420	\$ 9,231	\$ 1,137	\$ 1,701	\$ 5,342	\$ 24,491	\$ 61	\$ 139	\$ 42,102
			2022 Q2								2022 Q1							
			Risk-weight							Total credit exposures amount (post-CCF and post-CRM)	Risk-weight							Total credit exposures amount (post-CCF and post-CRM)
			0%	20%	35%	75%	100%	150%	Other		0%	20%	35%	75%	100%	150%	Other	
Asset classes																		
Corporate	9		\$ 1,494	\$ –	\$ –	\$ –	\$ 1,714	\$ 2	\$ –	\$ 3,210	\$ 2,432	\$ –	\$ –	\$ –	\$ 1,242	\$ –	\$ –	\$ 3,674
Sovereign	10		–	1	–	–	–	–	–	1	–	1	–	–	–	–	–	1
Bank	11		–	814	–	–	–	–	–	814	–	489	–	–	–	–	–	489
Retail residential mortgages	12		–	–	1,505	2,903	13	–	–	4,421	–	–	1,442	2,980	15	–	–	4,437
Other retail	13		610	339	–	2,361	–	75	–	3,385	751	273	–	2,352	–	86	–	3,462
Equity	14		2,064	177	–	–	3,901	–	–	6,142	2,045	205	–	–	3,845	–	–	6,095
Other assets ²	15		6,152	–	–	–	17,957	–	132	24,241	7,627	–	–	–	17,467	–	131	25,225
Total	16		\$ 10,320	\$ 1,331	\$ 1,505	\$ 5,264	\$ 23,585	\$ 77	\$ 132	\$ 42,214	\$ 12,855	\$ 968	\$ 1,442	\$ 5,332	\$ 22,569	\$ 86	\$ 131	\$ 43,383
			2021 Q4															
			Risk-weight							Total credit exposures amount (post-CCF and post-CRM)								
			0%	20%	35%	75%	100%	150%	Other									
Asset classes																		
Corporate	17		\$ 4,086	\$ –	\$ –	\$ –	\$ 1,979	\$ 1	\$ –	\$ 6,066								
Sovereign	18		–	1	–	–	–	–	–	1								
Bank	19		–	519	–	–	–	–	–	519								
Retail residential mortgages	20		–	–	1,429	2,878	16	–	–	4,323								
Other retail	21		710	257	–	2,292	–	108	–	3,367								
Equity	22		1,990	195	–	–	3,604	–	–	5,789								
Other assets ²	23		6,596	–	–	–	18,858	–	119	25,573								
Total	24		\$ 13,382	\$ 972	\$ 1,429	\$ 5,170	\$ 24,457	\$ 109	\$ 119	\$ 45,638								

¹ Excludes securitization and CCR.

² Excludes exposures subject to direct capital deductions and threshold deductions.

IRB – Credit Risk Exposures by Portfolio and PD Range (CR6) – Corporate¹

(\$ millions, except as noted) As at		LINE #	2022 Q4													
			PD scale ²	External rating	Original on-balance sheet gross exposure ³	Off-balance sheet exposures pre-CCF ³	Average CCF (%)	EAD post CRM and post-CCF ⁴	Average PD (%)	Number of obligors ⁵	Average LGD (%)	Average maturity (years)	RWA	RWA density ⁶	EL	Provisions
Canada ⁷	1		0.00 to <0.15	% AAA to BBB-	\$ 55,751	\$ 107,226	69.52	\$ 144,141	0.08	6,780	34.72	2.7	\$ 28,293	19.63	\$ 37	
	2		0.15 to <0.25	BB+	27,515	10,160	69.99	29,020	0.20	2,419	24.19	2.3	8,125	28.00	14	
	3		0.25 to <0.50	BB to BB-	43,285	15,486	67.37	47,480	0.36	7,517	26.35	2.2	17,593	37.05	44	
	4		0.50 to <0.75	B+	13,282	3,289	69.23	14,823	0.68	2,214	27.39	1.9	7,444	50.22	28	
	5		0.75 to <2.50	B To B-	25,321	6,372	69.14	28,622	1.63	11,126	37.15	2.1	26,736	93.41	171	
	6		2.50 to <10.00	CCC+	2,240	1,122	50.55	2,732	9.01	307	44.72	2.2	5,246	192.02	110	
	7		10.00 to <100.00	CCC to CC and below	2,244	1,317	56.82	2,908	20.78	672	40.71	1.8	6,390	219.74	246	
	8		100.00 (Default)	Default	418	14	67.38	423	100.00	213	56.78	1.8	1,170	276.60	246	
	9		Total		\$ 170,056	\$ 144,986	69.04	\$ 270,149	0.81	30,452	32.17	2.4	\$ 100,997	37.39	\$ 896	\$ 288
U.S.	10		0.00 to <0.15	% AAA to A-	\$ 22,918	\$ 17,836	66.09	\$ 39,908	0.05	486	30.86	3.5	\$ 5,873	14.72	\$ 5	
	11		0.15 to <0.25	BBB+	6,296	6,970	61.27	10,572	0.23	166	27.31	2.8	3,458	32.71	7	
	12		0.25 to <0.50	BBB	6,538	10,205	61.49	12,815	0.48	222	34.28	2.8	7,676	59.90	21	
	13		0.50 to <0.75	BBB- to BB	36,980	23,801	59.90	51,036	0.64	4,572	32.75	3.4	35,000	68.58	107	
	14		0.75 to <2.50	BB- To B	21,922	12,245	61.08	29,357	1.49	6,841	35.64	3.2	28,159	95.92	159	
	15		2.50 to <10.00	B-	9,796	2,370	58.86	6,225	4.69	1,483	32.32	3.1	7,273	116.84	94	
	16		10.00 to <100.00	CCC+ to CC and below	3,594	894	47.20	4,016	30.52	590	37.37	3.0	8,638	215.09	450	
	17		100.00 (Default)	Default	155	71	41.42	185	100.00	141	72.00	3.0	1,376	743.78	36	
	18		Total		\$ 108,199	\$ 74,392	61.72	\$ 154,114	1.67	14,496	32.71	3.3	\$ 97,453	63.23	\$ 879	\$ 26
			2022 Q3													
			PD scale ²	External rating	Original on-balance sheet gross exposure ³	Off-balance sheet exposures pre-CCF ³	Average CCF (%)	EAD post CRM and post-CCF ⁴	Average PD (%)	Number of obligors ⁵	Average LGD (%)	Average maturity (years)	RWA	RWA density ⁶	EL	Provisions
Canada ⁷	19		0.00 to <0.15	% AAA to BBB-	\$ 51,043	\$ 103,396	69.88	\$ 136,825	0.08	6,499	34.81	2.7	\$ 26,374	19.28	\$ 35	
	20		0.15 to <0.25	BB+	23,635	9,654	69.67	25,095	0.20	2,324	25.68	2.4	7,378	29.40	13	
	21		0.25 to <0.50	BB to BB-	43,075	15,461	67.67	47,093	0.36	7,520	27.04	2.3	18,225	38.70	45	
	22		0.50 to <0.75	B+	13,418	3,309	69.26	14,887	0.68	2,348	26.74	1.9	7,251	48.71	27	
	23		0.75 to <2.50	B To B-	25,264	5,631	69.05	28,265	1.62	11,593	34.66	2.2	24,579	86.96	156	
	24		2.50 to <10.00	CCC+	1,669	1,388	49.48	2,324	9.01	250	44.35	2.2	4,438	190.96	93	
	25		10.00 to <100.00	CCC to CC and below	2,095	1,253	55.61	2,718	20.34	695	38.66	1.9	5,673	208.72	215	
	26		100.00 (Default)	Default	362	33	47.91	376	100.00	202	56.71	1.7	873	232.18	242	
	27		Total		\$ 160,561	\$ 140,125	69.24	\$ 257,583	0.79	30,672	32.18	2.5	\$ 94,791	36.80	\$ 826	\$ 257
U.S.	28		0.00 to <0.15	% AAA to A-	\$ 21,759	\$ 14,064	67.43	\$ 36,358	0.05	471	32.02	3.5	\$ 5,462	15.02	\$ 5	
	29		0.15 to <0.25	BBB+	5,523	6,100	60.27	9,200	0.23	164	27.20	3.0	3,110	33.80	6	
	30		0.25 to <0.50	BBB	5,623	8,630	61.31	10,916	0.48	218	34.87	2.9	6,676	61.16	18	
	31		0.50 to <0.75	BBB- to BB	32,602	20,357	59.53	44,544	0.64	4,448	32.55	3.4	30,530	68.54	93	
	32		0.75 to <2.50	BB- To B	20,889	10,742	60.99	27,415	1.50	7,040	36.36	3.2	26,811	97.80	153	
	33		2.50 to <10.00	B-	9,551	1,987	59.38	5,817	4.69	1,590	33.44	3.2	7,141	122.76	91	
	34		10.00 to <100.00	CCC+ to CC and below	3,500	1,011	49.45	3,998	30.25	615	40.75	2.8	9,262	231.67	486	
	35		100.00 (Default)	Default	200	65	41.44	227	100.00	161	73.18	3.2	1,639	722.03	43	
	36		Total		\$ 99,647	\$ 62,956	61.68	\$ 138,475	1.80	14,703	33.33	3.3	\$ 90,631	65.45	\$ 895	\$ 50

¹ Excludes counterparty exposures (derivative and repo-style transactions).

² Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

³ Exposures based on obligors prior to CRM.

⁴ Exposures after CRM reflecting guarantor.

⁵ Total number of obligors is total number of unique borrowers and may not add as certain borrowers may be represented in more than one PD scale.

⁶ Total RWA to post-CRM EAD.

⁷ Includes Canadian Personal and Commercial Banking, Wealth Management and Insurance, Wholesale Banking and Corporate segments.

IRB – Credit Risk Exposures by Portfolio and PD Range (CR6) – Corporate (Continued)¹

(\$ millions, except as noted)		LINE	2022													
As at	#		Q2													
			PD scale ²	External rating	Original on-balance sheet gross exposure ³	Off-balance sheet exposures pre-CCF ³	Average CCF (%)	EAD post CRM and post-CCF ⁴	Average PD (%)	Number of obligors ⁵	Average LGD (%)	Average maturity (years)	RWA	RWA density ⁶	EL	Provisions
Canada ⁷	1		0.00 to <0.15	% AAA to BBB-	\$ 44,026	\$ 103,083	69.86	% \$ 129,475	0.08	% 6,031	35.05	% 2.7	\$ 24,391	18.84	% \$ 33	
	2		0.15 to <0.25	BB+	21,457	9,087	69.40	22,635	0.20	2,171	25.42	2.1	6,222	27.49	12	
	3		0.25 to <0.50	BB to BB-	40,926	15,995	67.55	45,267	0.36	7,345	27.33	2.2	17,557	38.79	44	
	4		0.50 to <0.75	B+	13,067	3,090	68.66	14,397	0.68	2,378	24.50	2.0	6,622	46.00	24	
	5		0.75 to <2.50	B To B-	25,191	5,573	68.86	28,088	1.62	11,969	35.24	2.2	24,794	88.27	159	
	6		2.50 to <10.00	CCC+	1,825	1,831	53.93	2,781	9.01	317	40.69	2.3	4,936	177.49	102	
	7		10.00 to <100.00	CCC to CC and below	1,933	594	50.26	2,158	20.43	643	39.92	1.7	4,577	212.09	174	
	8		100.00 (Default)	Default	376	21	53.85	385	100.00	198	57.33	1.7	935	242.86	245	
	9		Total		\$ 148,801	\$ 139,274	69.20	% \$ 245,186	0.79	% 30,337	32.28	% 2.4	\$ 90,034	36.72	% \$ 793	\$ 265
U.S.	10		0.00 to <0.15	% AAA to A-	\$ 21,213	\$ 15,683	67.23	% \$ 38,025	0.05	% 486	35.24	% 3.4	\$ 5,858	15.41	% \$ 5	
	11		0.15 to <0.25	BBB+	5,101	5,889	60.00	8,635	0.23	159	27.37	2.8	2,898	33.56	5	
	12		0.25 to <0.50	BBB	5,289	8,467	61.39	10,488	0.48	215	33.11	2.8	5,862	55.89	17	
	13		0.50 to <0.75	BBB- to BB	31,224	18,864	59.73	42,050	0.64	4,320	33.66	3.4	29,422	69.97	91	
	14		0.75 to <2.50	BB- To B	20,421	10,026	60.75	26,159	1.51	7,077	35.99	3.2	25,453	97.30	145	
	15		2.50 to <10.00	B-	9,926	1,981	58.28	5,606	4.69	1,667	35.91	3.1	7,350	131.11	94	
	16		10.00 to <100.00	CCC+ to CC and below	4,084	1,007	50.74	4,593	29.68	677	44.78	2.7	11,619	252.97	596	
	17		100.00 (Default)	Default	210	65	41.52	237	100.00	177	76.18	3.1	2,038	859.92	27	
	18		Total		\$ 97,468	\$ 61,982	61.83	% \$ 135,793	1.93	% 14,773	34.65	% 3.3	\$ 90,500	66.65	% \$ 980	\$ 35
			2022													
			Q1													
			PD scale ²	External rating	Original on-balance sheet gross exposure ³	Off-balance sheet exposures pre-CCF ³	Average CCF (%)	EAD post CRM and post-CCF ⁴	Average PD (%)	Number of obligors ⁵	Average LGD (%)	Average maturity (years)	RWA	RWA density ⁶	EL	Provisions
Canada ⁷	19		0.00 to <0.15	% AAA to BBB-	\$ 42,267	\$ 96,601	69.86	% \$ 123,445	0.08	% 5,761	35.33	% 2.7	\$ 22,753	18.43	% \$ 30	
	20		0.15 to <0.25	BB+	20,728	9,396	68.94	22,119	0.20	2,039	23.28	2.1	5,779	26.13	11	
	21		0.25 to <0.50	BB to BB-	37,845	14,554	67.51	41,318	0.36	7,194	26.45	2.3	15,647	37.87	39	
	22		0.50 to <0.75	B+	11,356	2,749	69.32	12,435	0.68	2,447	26.22	2.1	6,011	48.34	22	
	23		0.75 to <2.50	B To B-	26,755	6,484	71.13	30,082	1.61	12,187	33.18	2.1	24,920	82.84	160	
	24		2.50 to <10.00	CCC+	1,615	2,091	48.02	2,558	9.01	329	37.35	2.5	4,180	163.41	86	
	25		10.00 to <100.00	CCC to CC and below	1,831	474	45.41	1,970	21.05	690	40.41	1.6	4,236	215.03	169	
	26		100.00 (Default)	Default	363	20	54.80	370	100.00	202	55.10	1.8	753	203.51	243	
	27		Total		\$ 142,760	\$ 132,369	69.15	% \$ 234,297	0.80	% 30,119	31.96	% 2.4	\$ 84,279	35.97	% \$ 760	\$ 254
U.S.	28		0.00 to <0.15	% AAA to A-	\$ 18,598	\$ 16,344	66.86	% \$ 36,102	0.05	% 485	35.90	% 3.4	\$ 5,354	14.83	% \$ 5	
	29		0.15 to <0.25	BBB+	5,150	6,306	59.85	8,925	0.23	159	27.98	3.0	3,155	35.35	6	
	30		0.25 to <0.50	BBB	5,259	8,252	61.22	10,314	0.48	221	34.31	2.8	6,071	58.86	17	
	31		0.50 to <0.75	BBB- to BB	28,578	18,098	59.83	39,018	0.64	4,427	34.05	3.3	27,464	70.39	86	
	32		0.75 to <2.50	BB- To B	20,335	10,353	60.97	26,303	1.52	7,527	36.31	3.2	25,866	98.34	148	
	33		2.50 to <10.00	B-	10,402	2,541	58.85	6,056	4.69	1,964	36.82	3.1	8,158	134.71	105	
	34		10.00 to <100.00	CCC+ to CC and below	4,515	1,115	49.31	5,059	30.14	742	45.01	2.9	12,965	256.28	671	
	35		100.00 (Default)	Default	233	85	41.06	268	100.00	182	75.05	2.9	2,374	885.82	22	
	36		Total		\$ 93,070	\$ 63,094	61.77	% \$ 132,045	2.13	% 15,702	35.25	% 3.2	\$ 91,407	69.22	% \$ 1,060	\$ 40

¹ Excludes counterparty exposures (derivative and repo-style transactions).

² Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

³ Exposures based on obligors prior to CRM.

⁴ Exposures after CRM reflecting guarantor.

⁵ Total number of obligors is total number of unique borrowers and may not add as certain borrowers may be represented in more than one PD scale.

⁶ Total RWA to post-CRM EAD.

⁷ Includes Canadian Personal and Commercial Banking, Wealth Management and Insurance, Wholesale Banking and Corporate segments.

IRB – Credit Risk Exposures by Portfolio and PD Range (CR6) – Corporate (Continued)¹

(\$ millions, except as noted)		2021													
As at	LINE #	Q4													
		PD scale ²	External rating	Original on-balance sheet gross exposure ³	Off-balance sheet exposures pre-CCF ³	Average CCF (%)	EAD post CRM and post-CCF ⁴	Average PD (%)	Number of obligors ⁵	Average LGD (%)	Average maturity (years)	RWA	RWA density ⁶	EL	Provisions
Canada ⁷	1	0.00 to <0.15	% AAA to BBB-	\$ 36,957	\$ 93,648	69.96 %	\$ 115,980	0.08 %	5,491	35.42 %	2.6	\$ 21,077	18.17 %	\$ 28	
	2	0.15 to <0.25	BB+	17,900	10,777	68.11	20,340	0.20	1,998	25.32	2.3	5,682	27.94	11	
	3	0.25 to <0.50	BB to BB-	34,655	13,745	67.75	37,895	0.36	6,924	26.10	2.2	14,103	37.22	35	
	4	0.50 to <0.75	B+	10,935	2,585	68.53	11,691	0.68	2,444	27.11	2.1	5,726	48.98	21	
	5	0.75 to <2.50	B To B-	26,994	6,784	69.30	30,338	1.61	12,272	32.47	2.1	24,362	80.30	154	
	6	2.50 to <10.00	CCC+	1,654	2,843	45.88	2,888	9.01	384	34.30	2.2	4,259	147.47	89	
		10.00 to <100.00	CCC to CC and below												
	7			1,963	527	43.69	2,106	21.95	680	41.45	1.7	4,663	221.42	191	
	8	100.00 (Default)	Default	363	22	55.59	373	100.00	209	55.44	1.9	815	218.50	232	
	9	Total		\$ 131,421	\$ 130,931	68.88 %	\$ 221,611	0.87 %	29,693	32.13 %	2.4	\$ 80,687	36.41 %	\$ 761	\$ 243
U.S.	10	0.00 to <0.15	% AAA to A-	\$ 18,385	\$ 14,854	65.36 %	\$ 34,925	0.05 %	470	38.25 %	3.3	\$ 5,735	16.42 %	\$ 6	
	11	0.15 to <0.25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	12	0.25 to <0.50	BBB+	4,340	6,240	58.04	7,963	0.29	163	29.41	2.9	3,325	41.76	7	
	13	0.50 to <0.75	BBB to BBB-	13,141	15,159	59.09	21,947	0.71	1,303	34.50	3.1	15,853	72.23	54	
	14	0.75 to <2.50	BB+ to B	37,809	21,750	58.37	50,004	1.27	10,835	35.63	3.2	45,530	91.05	231	
	15	2.50 to <10.00	B-	10,722	2,449	58.01	5,967	4.70	1,978	36.27	3.2	7,977	133.69	102	
		10.00 to <100.00	CCC+ to CC and below												
	16			5,083	1,245	45.44	5,642	29.92	816	43.94	2.9	14,132	250.48	726	
	17	100.00 (Default)	Default	283	75	42.43	315	100.00	199	68.99	2.8	2,469	783.81	32	
	18	Total		\$ 89,763	\$ 61,772	59.90 %	\$ 126,763	2.46 %	15,757	36.25 %	3.2	\$ 95,021	74.96 %	\$ 1,158	\$ 41

¹ Excludes counterparty exposures (derivative and repo-style transactions).

² Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

³ Exposures based on obligors prior to CRM.

⁴ Exposures after CRM reflecting guarantor.

⁵ Total number of obligors is total number of unique borrowers and may not add as certain borrowers may be represented in more than one PD scale.

⁶ Total RWA to post-CRM EAD.

⁷ Includes Canadian Personal and Commercial Banking, Wealth Management and Insurance, Wholesale Banking and Corporate segments.

IRB – Credit Risk Exposures by Portfolio and PD Range (CR6) – Sovereign¹

(\$ millions, except as noted)
As at

LINE #	2022 Q4													
	PD scale ²	External rating	Original on-balance sheet gross exposure ³	Off-balance sheet exposures pre-CCF ³	Average CCF (%)	EAD post CRM and post-CCF ⁴	Average PD (%)	Number of obligors ⁵	Average LGD (%)	Average maturity (years)	RWA	RWA density ⁶	EL	Provisions
1	0.00 to <0.15	% AAA to BBB-	\$ 443,386	\$ 3,857	76.54	\$ 508,124 ⁷	0.01	1,052	8.06	2.7	\$ 4,287	0.84	\$ 2	
2	0.15 to <0.25	BB+	41	–	–	41	0.20	1	13.60	1.0	4	9.76	–	
3	0.25 to <0.50	BB to BB-	–	–	–	–	–	–	–	–	–	–	–	
4	0.50 to <0.75	B+	–	–	–	–	–	–	–	–	–	–	–	
5	0.75 to <2.50	B To B-	187	147	59.00	–	2.14	1	33.75	2.5	–	–	–	
6	2.50 to <10.00	CCC+	1,177	16	40.28	1	4.69	1	–	5.0	–	–	–	
7	10.00 to <100.00	CCC to CC and below	–	–	–	–	–	–	–	–	–	–	–	
8	100.00 (Default)	Default	–	–	–	–	–	–	–	–	–	–	–	
9	Total		\$ 444,791	\$ 4,020	75.75	\$ 508,166	0.01	1,055	8.06	2.7	\$ 4,291	0.84	\$ 2	–
2022 Q3														
	PD scale ²	External rating	Original on-balance sheet gross exposure ³	Off-balance sheet exposures pre-CCF ³	Average CCF (%)	EAD post CRM and post-CCF ⁴	Average PD (%)	Number of obligors ⁵	Average LGD (%)	Average maturity (years)	RWA	RWA density ⁶	EL	Provisions
10	0.00 to <0.15	% AAA to BBB-	\$ 427,972	\$ 4,200	75.30	\$ 494,612 ⁷	0.01	1,079	8.30	2.7	\$ 3,951	0.80	\$ 2	
11	0.15 to <0.25	BB+	21	–	–	21	0.20	1	13.60	1.0	2	9.52	–	
12	0.25 to <0.50	BB to BB-	–	–	–	–	–	–	–	–	–	–	–	
13	0.50 to <0.75	B+	–	–	–	–	–	–	–	–	–	–	–	
14	0.75 to <2.50	B To B-	177	139	59.00	–	2.14	1	33.75	2.5	–	–	–	
15	2.50 to <10.00	CCC+	1,125	17	39.96	1	4.69	1	–	5.0	–	–	–	
16	10.00 to <100.00	CCC to CC and below	–	–	–	–	–	–	–	–	–	–	–	
17	100.00 (Default)	Default	–	–	–	–	–	–	–	–	–	–	–	
18	Total		\$ 429,295	\$ 4,356	74.64	\$ 494,634	0.01	1,082	8.30	2.7	\$ 3,953	0.80	\$ 2	–
2022 Q2														
	PD scale ²	External rating	Original on-balance sheet gross exposure ³	Off-balance sheet exposures pre-CCF ³	Average CCF (%)	EAD post CRM and post-CCF ⁴	Average PD (%)	Number of obligors ⁵	Average LGD (%)	Average maturity (years)	RWA	RWA density ⁶	EL	Provisions
19	0.00 to <0.15	% AAA to BBB-	\$ 417,205	\$ 4,259	77.07	\$ 485,543 ⁷	0.01	1,092	8.43	2.9	\$ 3,736	0.77	\$ 2	
20	0.15 to <0.25	BB+	–	–	–	–	–	–	–	–	–	–	–	
21	0.25 to <0.50	BB to BB-	–	–	–	–	–	–	–	–	–	–	–	
22	0.50 to <0.75	B+	–	–	–	–	–	–	–	–	–	–	–	
23	0.75 to <2.50	B To B-	1	–	–	1	2.14	2	33.75	2.5	1	100.00	–	
24	2.50 to <10.00	CCC+	1,047	1	100.00	1	4.69	1	–	1.8	–	–	–	
25	10.00 to <100.00	CCC to CC and below	–	–	–	–	–	–	–	–	–	–	–	
26	100.00 (Default)	Default	–	–	–	–	–	–	–	–	–	–	–	
27	Total		\$ 418,253	\$ 4,260	77.07	\$ 485,545	0.01	1,094	8.43	2.9	\$ 3,737	0.77	\$ 2	–

¹ Excludes CCR exposures (derivative and repo-style transactions).

² Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

³ Exposures based on obligors prior to CRM.

⁴ Exposures after CRM reflecting guarantor.

⁵ Total number of obligors is total number of unique borrowers and may not add as certain borrowers may be represented in more than one PD scale.

⁶ Total RWA as a percentage of post-CRM EAD.

⁷ Includes residential secured government insured exposures (CMHC). For pre-CRM, these are included under Residential secured – insured.

IRB – Credit Risk Exposures by Portfolio and PD Range (CR6) – Sovereign (Continued)¹

(\$ millions, except as noted) As at		LINE #	2022 Q1												
	PD scale ²	External rating	Original on-balance sheet gross exposure ³	Off-balance sheet exposures pre-CCF ³	Average CCF (%)	EAD post CRM and post-CCF ⁴	Average PD (%)	Number of obligors ⁵	Average LGD (%)	Average maturity (years)	RWA	RWA density ⁶	EL	Provisions	
1	0.00 to <0.15	% AAA to BBB-	\$ 445,844	\$ 4,279	77.15 %	\$ 515,962 ⁷	0.01 %	1,079	8.53 %	2.5	\$ 3,385	0.66 %	\$ 2		
2	0.15 to <0.25	BB+	10	—	—	10	0.20	1	13.60	1.0	1	10.00	—		
3	0.25 to <0.50	BB to BB-	—	—	—	—	—	—	—	—	—	—	—		
4	0.50 to <0.75	B+	—	—	—	—	—	—	—	—	—	—	—		
5	0.75 to <2.50	B To B-	—	—	—	—	2.14	3	33.75	2.5	—	—	—		
6	2.50 to <10.00	CCC+	1,043	1	100.00	1	4.69	1	—	2.1	—	—	—		
7	10.00 to <100.00	CCC to CC and below	—	—	—	—	—	—	—	—	—	—	—		
8	100.00 (Default)	Default	—	—	—	—	—	—	—	—	—	—	—		
9	Total		\$ 446,897	\$ 4,280	77.15 %	\$ 515,973	0.01 %	1,083	8.53 %	2.5	\$ 3,386	0.66 %	\$ 2		\$ —
2021 Q4															
	PD scale ²	External rating	Original on-balance sheet gross exposure ³	Off-balance sheet exposures pre-CCF ³	Average CCF (%)	EAD post CRM and post-CCF ⁴	Average PD (%)	Number of obligors ⁵	Average LGD (%)	Average maturity (years)	RWA	RWA density ⁶	EL	Provisions	
10	0.00 to <0.15	% AAA to BBB-	\$ 419,849	\$ 3,705	77.83 %	\$ 491,614 ⁷	0.01 %	1,074	9.44 %	2.5	\$ 3,755	0.76 %	\$ 2		
11	0.15 to <0.25	BB+	10	—	—	10	0.20	1	13.60	1.0	1	10.00	—		
12	0.25 to <0.50	BB to BB-	—	—	—	—	—	—	—	—	—	—	—		
13	0.50 to <0.75	B+	—	—	—	—	—	—	—	—	—	—	—		
14	0.75 to <2.50	B To B-	—	—	—	—	2.14	3	33.75	2.5	—	—	—		
15	2.50 to <10.00	CCC+	975	1	100.00	1	4.70	1	—	2.3	—	—	—		
16	10.00 to <100.00	CCC to CC and below	—	—	—	—	—	—	—	—	—	—	—		
17	100.00 (Default)	Default	—	—	—	—	—	—	—	—	—	—	—		
18	Total		\$ 420,834	\$ 3,706	77.83 %	\$ 491,625	0.01 %	1,079	9.44 %	2.5	\$ 3,756	0.76 %	\$ 2		\$ —

¹ Excludes CCR exposures (derivative and repo-style transactions).

² Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

³ Exposures based on obligors prior to CRM.

⁴ Exposures after CRM reflecting guarantor.

⁵ Total number of obligors is total number of unique borrowers and may not add as certain borrowers may be represented in more than one PD scale.

⁶ Total RWA as a percentage of post-CRM EAD.

⁷ Includes residential secured government insured exposures (CMHC). For pre-CRM, these are included under Residential secured – insured.

IRB – Credit Risk Exposures by Portfolio and PD Range (CR6) – Bank¹

(\$ millions, except as noted)
As at

LINE #	2022 Q4													
	PD scale ²	External rating	Original on-balance sheet gross exposure ³	Off-balance sheet exposures pre-CCF ³	Average CCF (%)	EAD post CRM and post-CCF ⁴	Average PD (%)	Number of obligors ⁵	Average LGD (%)	Average maturity (years)	RWA	RWA density ⁶	EL	Provisions
1	0.00 to <0.15	% AAA to BBB-	\$ 31,867	\$ 19,381	73.49	\$ 46,335	0.04	1,015	26.68	2.9	\$ 5,759	12.43	\$ 5	
2	0.15 to <0.25	BB+	299	956	84.06	1,102	0.22	42	27.47	2.8	354	32.12	1	
3	0.25 to <0.50	BB to BB-	1,762	54	74.40	1,800	0.44	21	49.88	0.3	1,075	59.72	4	
4	0.50 to <0.75	B+	672	24	77.08	487	0.59	34	48.26	3.9	457	93.84	1	
5	0.75 to <2.50	B To B-	122	3	60.95	108	1.61	19	67.11	4.2	225	208.33	1	
6	2.50 to <10.00	CCC+	8	—	59.00	4	8.80	3	4.51	1.2	1	25.00	—	
7	10.00 to <100.00	CCC to CC and below	119	—	—	119	40.80	2	66.20	5.0	391	328.57	33	
8	100.00 (Default)	Default	—	—	—	—	—	—	—	—	—	—	—	
9	Total		\$ 34,849	\$ 20,418	73.99	\$ 49,955	0.16	1,131	27.92	2.8	\$ 8,262	16.54	\$ 45	—
2022 Q3														
	PD scale ²	External rating	Original on-balance sheet gross exposure ³	Off-balance sheet exposures pre-CCF ³	Average CCF (%)	EAD post CRM and post-CCF ⁴	Average PD (%)	Number of obligors ⁵	Average LGD (%)	Average maturity (years)	RWA	RWA density ⁶	EL	Provisions
10	0.00 to <0.15	% AAA to BBB-	\$ 31,958	\$ 17,710	73.29	\$ 45,184	0.04	1,021	29.29	2.7	\$ 5,683	12.58	\$ 6	
11	0.15 to <0.25	BB+	284	895	84.58	1,041	0.22	42	27.90	3.0	345	33.14	1	
12	0.25 to <0.50	BB to BB-	241	38	77.58	246	0.44	22	29.83	2.3	119	48.37	—	
13	0.50 to <0.75	B+	652	25	74.91	467	0.60	32	49.19	4.0	457	97.86	1	
14	0.75 to <2.50	B To B-	114	3	60.95	100	1.59	35	67.96	4.3	211	211.00	1	
15	2.50 to <10.00	CCC+	8	—	59.00	5	8.80	3	4.47	1.4	1	20.00	—	
16	10.00 to <100.00	CCC to CC and below	113	—	—	113	40.77	2	66.20	5.0	370	327.43	31	
17	100.00 (Default)	Default	—	—	—	—	—	—	—	—	—	—	—	
18	Total		\$ 33,370	\$ 18,671	73.84	\$ 47,156	0.15	1,148	29.62	2.7	\$ 7,186	15.24	\$ 40	—
2022 Q2														
	PD scale ²	External rating	Original on-balance sheet gross exposure ³	Off-balance sheet exposures pre-CCF ³	Average CCF (%)	EAD post CRM and post-CCF ⁴	Average PD (%)	Number of obligors ⁵	Average LGD (%)	Average maturity (years)	RWA	RWA density ⁶	EL	Provisions
19	0.00 to <0.15	% AAA to BBB-	\$ 27,134	\$ 16,068	73.42	\$ 39,159	0.04	1,039	27.59	2.8	\$ 4,987	12.74	\$ 4	
20	0.15 to <0.25	BB+	607	831	83.00	1,228	0.22	47	22.76	2.2	328	26.71	1	
21	0.25 to <0.50	BB to BB-	355	39	68.45	250	0.45	24	24.95	2.4	108	43.20	—	
22	0.50 to <0.75	B+	449	11	86.61	451	0.58	29	41.56	4.5	411	91.13	1	
23	0.75 to <2.50	B To B-	119	7	59.73	107	1.56	29	66.83	4.1	218	203.74	1	
24	2.50 to <10.00	CCC+	4	—	59.00	—	4.69	2	21.21	1.1	—	—	—	
25	10.00 to <100.00	CCC to CC and below	49	—	—	49	70.71	1	67.85	5.0	120	244.90	24	
26	100.00 (Default)	Default	—	—	—	—	—	—	—	—	—	—	—	
27	Total		\$ 28,717	\$ 16,956	73.88	\$ 41,244	0.14	1,160	27.73	2.8	\$ 6,172	14.96	\$ 31	—

¹ Excludes CCR exposures (derivative and repo-style transactions).

² Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

³ Exposures based on obligors prior to CRM.

⁴ Exposures after CRM reflecting guarantor.

⁵ Total number of obligors is total number of unique borrowers and may not add as certain borrowers may be represented in more than one PD scale.

⁶ Total RWA as a percentage of post-CRM EAD.

IRB – Credit Risk Exposures by Portfolio and PD Range (CR6) – Bank (Continued)¹

(\$ millions, except as noted)
As at

LINE #	2022														2021
	Q1														Q4
	PD scale ²	External rating	Original on-balance sheet gross exposure ³	Off-balance sheet exposures pre-CCF ³	Average CCF (%)	EAD post CRM and post-CCF ⁴	Average PD (%)	Number of obligors ⁵	Average LGD (%)	Average maturity (years)	RWA	RWA density ⁶	EL	Provisions	
1	0.00 to <0.15	% AAA to BBB-	\$ 25,535	\$ 15,897	74.49	\$ 37,737	0.04	1,063	26.81	2.7	\$ 4,424	11.72	\$ 4		
2	0.15 to <0.25	BB+	381	824	83.01	975	0.22	47	22.18	2.3	229	23.49	–		
3	0.25 to <0.50	BB to BB-	471	23	51.73	244	0.45	21	28.99	2.0	117	47.95	–		
4	0.50 to <0.75	B+	370	38	65.34	387	0.58	34	28.19	4.8	263	67.96	1		
5	0.75 to <2.50	B To B-	183	9	61.54	170	1.44	33	76.55	3.3	339	199.41	2		
6	2.50 to <10.00	CCC+	4	–	59.00	–	4.69	2	21.21	2.3	–	–	–		
	10.00 to <100.00	CCC to CC and below	113	–	–	113	40.70	2	66.19	5.0	373	330.09	31		
7															
8	100.00 (Default)	Default	–	–	–	–	–	–	–	–	–	–	–		
9	Total		\$ 27,057	\$ 16,791	74.85	\$ 39,626	0.17	1,184	27.04	2.7	\$ 5,745	14.50	\$ 38	\$ –	
	PD scale ²	External rating	Original on-balance sheet gross exposure ³	Off-balance sheet exposures pre-CCF ³	Average CCF (%)	EAD post CRM and post-CCF ⁴	Average PD (%)	Number of obligors ⁵	Average LGD (%)	Average maturity (years)	RWA	RWA density ⁶	EL	Provisions	
10	0.00 to <0.15	% AAA to BBB-	\$ 24,869	\$ 16,603	72.41	\$ 37,303	0.04	1,074	27.47	2.5	\$ 4,343	11.64	\$ 4		
11	0.15 to <0.25	BB+	124	89	66.74	155	0.20	9	50.94	2.0	82	52.90	–		
12	0.25 to <0.50	BB to BB-	618	727	84.57	872	0.31	55	15.13	1.9	168	19.27	–		
13	0.50 to <0.75	B+	435	32	74.25	458	0.72	38	31.87	4.5	350	76.42	1		
14	0.75 to <2.50	B To B-	175	13	62.44	165	1.38	38	79.57	3.7	355	215.15	2		
15	2.50 to <10.00	CCC+	4	12	99.00	12	4.70	3	15.50	4.4	7	58.33	–		
	10.00 to <100.00	CCC to CC and below	111	–	–	111	40.63	2	62.96	5.0	345	310.81	30		
16															
17	100.00 (Default)	Default	–	–	–	–	–	–	–	–	–	–	–		
18	Total		\$ 26,336	\$ 17,476	72.90	\$ 39,076	0.18	1,205	27.66	2.6	\$ 5,650	14.46	\$ 37	\$ –	

¹ Excludes CCR exposures (derivative and repo-style transactions).

² Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

³ Exposures based on obligors prior to CRM.

⁴ Exposures after CRM reflecting guarantor.

⁵ Total number of obligors is total number of unique borrowers and may not add as certain borrowers may be represented in more than one PD scale.

⁶ Total RWA as a percentage of post-CRM EAD.

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

(\$ millions, except as noted)
As at

LINE #	2022 Q4													
	PD scale ¹	Original on-balance sheet gross exposure ²	Off-balance sheet exposures pre-CCF ²	Average CCF (%)	EAD post CRM and post-CCF ³	Average PD (%)	Number of obligors ⁴	Average LGD (%)	Average maturity (years) ⁵	RWA	RWA density ⁶	EL	Provisions	
1	0.00 to <0.15	% \$ 46,748	\$ 17,373	52.46	% \$ 11,838	0.06	% 322,046	8.82	%	\$ 183	1.55	% \$ 1	\$	
2	0.15 to <0.25	7,559	338	49.64	2,793	0.19	37,935	9.50		109	3.90	1		
3	0.25 to <0.50	6,054	146	49.14	2,346	0.32	33,955	9.56		134	5.71	1		
4	0.50 to <0.75	4,127	446	52.96	1,641	0.50	15,748	9.61		130	7.92	1		
5	0.75 to <2.50	4,642	46	48.30	1,627	1.22	16,265	9.55		229	14.07	2		
6	2.50 to <10.00	1,083	15	41.31	311	5.56	6,218	8.95		100	32.15	2		
7	10.00 to <100.00	273	1	46.31	55	22.78	1,695	8.11		25	45.45	1		
8	100.00 (Default)	109	—	—	20	100.00	645	8.71		23	115.00	—		
9	Total	70,595	18,365	52.37	20,631	0.48	434,507	9.12		933	4.52	9	5	
10	0.00 to <0.15	198,430	80,709	48.96	237,943	0.06	849,891	21.65		8,373	3.52	30		
11	0.15 to <0.25	39,724	4,634	46.93	41,899	0.19	125,178	26.11		4,519	10.79	21		
12	0.25 to <0.50	23,156	3,846	49.97	25,078	0.32	94,067	29.33		4,363	17.40	23		
13	0.50 to <0.75	12,237	—	—	12,237	0.51	24,617	29.49		3,034	24.79	18		
14	0.75 to <2.50	11,898	767	51.09	12,289	1.22	30,863	27.03		4,850	39.47	38		
15	2.50 to <10.00	1,950	55	42.12	1,973	5.35	8,364	20.73		1,403	71.11	21		
16	10.00 to <100.00	439	4	45.53	441	30.56	2,005	13.61		324	73.47	18		
17	100.00 (Default)	144	—	—	144	100.00	688	18.46		251	174.31	8		
18	Total	287,978	90,015	48.91	332,004	0.27	1,135,673	23.26		27,117	8.17	177	43	
19	0.00 to <0.15	33,473	14,273	66.02	42,897	0.06	113,376	29.34		2,016	4.70	7		
20	0.15 to <0.25	7,153	570	39.95	7,381	0.19	26,481	27.78		845	11.45	4		
21	0.25 to <0.50	4,647	436	39.39	4,819	0.32	23,765	27.71		793	16.46	4		
22	0.50 to <0.75	4,219	235	38.68	4,310	0.52	9,066	33.17		1,220	28.31	7		
23	0.75 to <2.50	4,392	234	33.71	4,471	1.30	14,600	30.31		2,093	46.81	18		
24	2.50 to <10.00	626	63	11.76	633	4.96	4,830	31.56		685	108.21	10		
25	10.00 to <100.00	495	11	9.65	496	18.75	1,708	23.52		612	123.39	23		
26	100.00 (Default)	676	—	—	676	100.00	3,446	22.27		454	67.16	117		
27	Total	55,681	15,822	63.21	65,683	1.42	197,272	29.27		8,718	13.27	190	58	
28		\$ 414,254	\$ 124,202	51.24	% \$ 418,318	0.46	% 1,767,452	23.42	%	\$ 36,768	8.79	% \$ 376	\$ 106	

¹ Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

² Exposures based on obligors prior to CRM.

³ Exposures after CRM reflecting guarantor.

⁴ Number of retail accounts.

⁵ Average maturity is not used in the calculation of retail exposure RWA.

⁶ Total RWA as a percentage of post-CRM EAD.

⁷ Includes residential mortgages and home equity lines of credit (HELOCs). Insured classification reflects when insurance on the exposure is used for CRM for reduction of RWA.

⁸ Includes government insured exposures (CMHC) and exposures insured by corporate entities. For post-CRM, government insured exposures are included in Sovereign.

⁹ Includes Canadian Personal and Commercial Banking, Wealth Management and Insurance, Wholesale Banking and Corporate segments.

IRB – Credit Risk Exposures by Portfolio and PD Range (CR6) – Residential Secured (Continued)

(\$ millions, except as noted)
As at

LINE #	2022 Q3																			
	PD scale ¹		Original on-balance sheet gross exposure ²	Off-balance sheet exposures pre-CCF ²	Average CCF (%)	EAD post CRM and post-CCF ³	Average PD (%)	Number of obligors ⁴	Average LGD (%)	Average maturity (years) ⁵	RWA	RWA density ⁶	EL	Provisions						
1	0.00 to <0.15	%	\$ 47,005	\$ 17,486	52.26	%	\$ 11,115	0.06	%	327,518	8.46	%	\$ 166	1.49	%	\$ 1	\$			
2	0.15 to <0.25		7,950	318	48.92		2,992	0.19		39,275	8.88		110	3.68		1				
3	0.25 to <0.50		6,401	148	48.99		2,570	0.32		36,596	9.32		143	5.56		1				
4	0.50 to <0.75		4,760	432	52.92		1,918	0.50		16,374	9.40		150	7.82		1				
5	0.75 to <2.50		4,660	55	46.77		1,601	1.20		17,227	9.50		223	13.93		2				
6	2.50 to <10.00		1,079	16	43.12		288	5.62		6,393	8.43		87	30.21		1				
7	10.00 to <100.00		289	1	69.80		62	24.21		1,861	8.18		29	46.77		1				
8	100.00 (Default)		117	—	—		21	100.00		667	8.71		24	114.29		—				
9	Total		72,261	18,456	52.17		20,567	0.50		445,911	8.80		932	4.53		8	5			
10	0.00 to <0.15		195,843	78,294	48.86		234,095	0.06		842,224	20.48		7,768	3.32		28				
11	0.15 to <0.25		42,740	4,980	46.19		45,040	0.19		133,271	25.61		4,752	10.55		22				
12	0.25 to <0.50		22,300	3,553	48.49		24,023	0.31		87,811	28.26		3,999	16.65		21				
13	0.50 to <0.75		10,636	—	—		10,636	0.51		23,137	27.65		2,474	23.26		15				
14	0.75 to <2.50		10,488	702	50.14		10,840	1.22		28,570	25.65		4,040	37.27		34				
15	2.50 to <10.00		1,846	51	39.57		1,866	5.49		8,127	19.00		1,230	65.92		18				
16	10.00 to <100.00		446	4	43.09		448	31.49		2,079	13.28		317	70.76		18				
17	100.00 (Default)		142	—	—		142	100.00		675	20.84		273	192.25		9				
18	Total		284,441	87,584	48.70		327,090	0.26		1,125,894	22.15		24,853	7.60		165	41			
19	0.00 to <0.15		29,842	13,118	65.94		38,491	0.06		109,563	29.01		1,779	4.62		6				
20	0.15 to <0.25		6,507	527	40.54		6,721	0.19		26,058	27.61		764	11.37		4				
21	0.25 to <0.50		4,372	415	38.71		4,533	0.32		23,788	27.93		754	16.63		4				
22	0.50 to <0.75		3,564	199	36.65		3,637	0.53		8,985	31.37		984	27.06		6				
23	0.75 to <2.50		4,052	207	33.33		4,121	1.30		14,424	29.40		1,876	45.52		16				
24	2.50 to <10.00		624	57	12.35		631	4.90		4,919	31.62		681	107.92		10				
25	10.00 to <100.00		453	11	9.92		454	19.68		1,747	23.31		562	123.79		21				
26	100.00 (Default)		609	—	—		609	100.00		3,390	22.25		375	61.58		107				
27	Total		50,023	14,534	63.12		59,197	1.44		192,874	28.86		7,775	13.13		174	49			
28		\$	406,725	\$	120,574	50.97	%	\$	406,854	0.45	%		\$	33,560	8.25	%	\$	347	\$	95

¹ Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

² Exposures based on obligors prior to CRM.

³ Exposures after CRM reflecting guarantor.

⁴ Number of retail accounts.

⁵ Average maturity is not used in the calculation of retail exposure RWA.

⁶ Total RWA as a percentage of post-CRM EAD.

⁷ Includes residential mortgages and HELOCs. Insured classification reflects when insurance on the exposure is used for CRM for reduction of RWA.

⁸ Includes government insured exposures (CMHC) and exposures insured by corporate entities. For post-CRM, government insured exposures are included in Sovereign.

⁹ Includes Canadian Personal and Commercial Banking, Wealth Management and Insurance, Wholesale Banking and Corporate segments.

IRB – Credit Risk Exposures by Portfolio and PD Range (CR6) – Residential Secured (Continued)

(\$ millions, except as noted)
As at

LINE #	2022 Q2																		
	PD scale ¹		Original on-balance sheet gross exposure ²	Off-balance sheet exposures pre-CCF ²	Average CCF (%)	EAD post CRM and post-CCF ³	Average PD (%)	Number of obligors ⁴	Average LGD (%)	Average maturity (years) ⁵	RWA	RWA density ⁶	EL	Provisions					
1	0.00 to <0.15	% \$	47,067	\$	17,640	52.20	% \$	10,278	0.07	%	331,257	8.40	%	\$	157	1.53	% \$	1	\$
2	0.15 to <0.25		8,383		358	49.25		2,984	0.19		42,365	8.94			111	3.72		1	
3	0.25 to <0.50		7,197		144	49.44		3,002	0.31		39,747	9.28			165	5.50		1	
4	0.50 to <0.75		4,588		413	52.77		1,791	0.51		16,608	9.35			141	7.87		1	
5	0.75 to <2.50		4,866		57	48.16		1,691	1.23		18,560	9.53			239	14.13		2	
6	2.50 to <10.00		1,160		16	41.41		308	5.53		6,875	8.38			92	29.87		1	
7	10.00 to <100.00		306		1	65.21		60	26.34		1,959	8.17			27	45.00		1	
8	100.00 (Default)		137		—	—		20	100.00		753	8.51			23	115.00		—	
9	Total		73,704		18,629	52.11		20,134	0.52		458,124	8.79			955	4.74		8	6
10	0.00 to <0.15		186,879		76,401	49.02		224,336	0.06		822,458	19.84			7,253	3.23		26	
11	0.15 to <0.25		40,095		4,069	46.63		41,992	0.19		126,716	23.60			4,095	9.75		19	
12	0.25 to <0.50		21,816		3,167	48.67		23,358	0.32		91,340	26.88			3,719	15.92		20	
13	0.50 to <0.75		11,273		—	—		11,273	0.51		23,567	26.61			2,510	22.27		15	
14	0.75 to <2.50		11,006		715	49.45		11,359	1.22		30,556	24.93			4,122	36.29		34	
15	2.50 to <10.00		1,799		29	50.39		1,814	5.64		8,169	18.77			1,199	66.10		18	
16	10.00 to <100.00		477		5	49.42		479	31.61		2,297	13.30			344	71.82		20	
17	100.00 (Default)		169		—	—		169	100.00		757	20.12			299	176.92		11	
18	Total		273,514		84,386	48.90		314,780	0.29		1,105,860	21.27			23,541	7.48		163	47
19	0.00 to <0.15		24,377		12,881	65.93		32,870	0.06		116,547	27.79			1,411	4.29		5	
20	0.15 to <0.25		5,666		528	41.01		5,882	0.19		19,105	26.14			634	10.78		3	
21	0.25 to <0.50		4,043		405	39.06		4,201	0.31		18,431	26.48			661	15.73		4	
22	0.50 to <0.75 ¹⁰		7,837		190	37.26		7,908	0.61		11,253	30.90			2,299	29.07		15	
23	0.75 to <2.50		3,992		207	35.57		4,065	1.32		13,965	28.71			1,823	44.85		15	
24	2.50 to <10.00		659		56	16.41		669	4.87		4,901	31.10			710	106.13		10	
25	10.00 to <100.00		443		10	11.71		444	20.24		1,922	22.33			524	118.02		20	
26	100.00 (Default)		613		—	—		613	100.00		4,527	23.13			363	59.22		115	
27	Total		47,630		14,277	63.19		56,652	1.55		190,651	27.96			8,425	14.87		187	51
28		\$	394,848	\$	117,292	51.15	% \$	391,566	0.49	%	1,754,635	21.49	%	\$	32,921	8.41	% \$	358	\$ 104

¹ Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

² Exposures based on obligors prior to CRM.

³ Exposures after CRM reflecting guarantor.

⁴ Number of retail accounts.

⁵ Average maturity is not used in the calculation of retail exposure RWA.

⁶ Total RWA as a percentage of post-CRM EAD.

⁷ Includes residential mortgages and HELOCs. Insured classification reflects when insurance on the exposure is used for CRM for reduction of RWA.

⁸ Includes government insured exposures (CMHC) and exposures insured by corporate entities. For post-CRM, government insured exposures are included in Sovereign.

⁹ Includes Canadian Personal and Commercial Banking, Wealth Management and Insurance, Wholesale Banking and Corporate segments.

¹⁰ Increase due to volume of unscored borrowers as at Q2 2022.

IRB – Credit Risk Exposures by Portfolio and PD Range (CR6) – Residential Secured (Continued)

(\$ millions, except as noted) As at		LINE #	2022 Q1													
			PD scale ¹	Original on-balance sheet gross exposure ²	Off- balance sheet exposures pre-CCF ²	Average CCF (%)	EAD post CRM and post-CCF ³	Average PD (%)	Number of obligors ⁴	Average LGD (%)	Average maturity (years) ⁵	RWA	RWA density ⁶	EL	Provisions	
Canada Insured ^{7,8,9}	1		0.00 to <0.15 %	\$ 47,786	\$ 17,687	52.02 %	\$ 9,865	0.07 %	336,767	8.34 %		\$ 151	1.53 %	\$ 1		
	2		0.15 to <0.25	8,493	385	48.33	2,836	0.19	43,196	8.98		106	3.74	—		
	3		0.25 to <0.50	7,654	155	48.38	3,405	0.31	42,167	9.29		185	5.43	1		
	4		0.50 to <0.75	4,759	410	53.03	1,792	0.52	17,430	9.38		142	7.92	1		
	5		0.75 to <2.50	5,106	66	48.08	1,747	1.22	19,341	9.48		245	14.02	2		
	6		2.50 to <10.00	1,189	18	42.17	311	5.38	7,163	8.50		92	29.58	1		
	7		10.00 to <100.00	319	1	64.75	59	26.79	1,939	8.14		27	45.76	1		
	8		100.00 (Default)	155	—	—	22	100.00	849	8.68		25	113.64	—		
	9		Total	75,461	18,722	51.91	20,037	0.54	468,852	8.79		973	4.86	7	6	
Canada Uninsured ^{7,9}	10		0.00 to <0.15	180,091	73,559	48.92	216,079	0.06	809,984	20.09		7,027	3.25	26		
	11		0.15 to <0.25	39,486	4,148	47.01	41,436	0.19	128,481	24.23		4,158	10.03	19		
	12		0.25 to <0.50	20,468	1,664	45.38	21,223	0.31	79,195	26.67		3,333	15.70	18		
	13		0.50 to <0.75	10,297	1,274	51.33	10,951	0.51	31,927	26.10		2,404	21.95	15		
	14		0.75 to <2.50	10,532	720	50.44	10,895	1.22	29,840	24.92		3,948	36.24	32		
	15		2.50 to <10.00	1,806	28	49.41	1,820	5.53	8,337	19.10		1,216	66.81	18		
	16		10.00 to <100.00	473	6	53.08	476	31.21	2,181	13.48		344	72.27	19		
	17		100.00 (Default)	189	—	—	189	100.00	864	20.61		340	179.89	13		
	18		Total	263,342	81,399	48.80	303,069	0.30	1,090,809	21.49		22,770	7.51	160	49	
U.S. Uninsured ⁷	19		0.00 to <0.15	27,261	12,634	65.72	35,563	0.06	118,920	28.21		1,534	4.31	5		
	20		0.15 to <0.25	5,388	505	38.62	5,584	0.19	21,102	26.37		607	10.87	3		
	21		0.25 to <0.50	3,867	400	37.57	4,018	0.32	18,084	27.00		645	16.05	3		
	22		0.50 to <0.75	3,578	192	35.89	3,646	0.54	7,934	29.10		926	25.40	6		
	23		0.75 to <2.50	4,036	214	33.14	4,107	1.33	14,163	29.15		1,882	45.82	16		
	24		2.50 to <10.00	798	62	11.89	806	5.83	5,192	28.37		826	102.48	13		
	25		10.00 to <100.00	264	11	9.47	265	25.17	2,176	26.84		397	149.81	17		
	26		100.00 (Default)	658	—	—	658	100.00	3,401	23.78		379	57.60	128		
	27		Total	45,850	14,018	62.75	54,647	1.63	190,972	28.01		7,196	13.17	191	47	
Total residential secured		28		\$ 384,653	\$ 114,139	51.03 %	\$ 377,753	0.51 %	1,750,633	21.65 %		\$ 30,939	8.19 %	\$ 358	\$ 102	

¹ Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

² Exposures based on obligors prior to CRM.

³ Exposures after CRM reflecting guarantor.

⁴ Number of retail accounts.

⁵ Average maturity is not used in the calculation of retail exposure RWA.

⁶ Total RWA as a percentage of post-CRM EAD.

⁷ Includes residential mortgages and HELOCs. Insured classification reflects when insurance on the exposure is used for CRM for reduction of RWA.

⁸ Includes government insured exposures (CMHC) and exposures insured by corporate entities. For post-CRM, government insured exposures are included in Sovereign.

⁹ Includes Canadian Personal and Commercial Banking, Wealth Management and Insurance, Wholesale Banking and Corporate segments.

IRB – Credit Risk Exposures by Portfolio and PD Range (CR6) – Residential Secured (Continued)

(\$ millions, except as noted) As at		2021 Q4												
LINE #		PD scale ¹	Original on-balance sheet gross exposure ²	Off-balance sheet exposures pre-CCF ²	Average CCF (%)	EAD post CRM and post-CCF ³	Average PD (%)	Number of obligors ⁴	Average LGD (%)	Average maturity (years) ⁵	RWA	RWA density ⁶	EL	Provisions
Canada Insured ^{7,8,9}	1	0.00 to <0.15 %	\$ 48,404	\$ 17,805	51.87 %	\$ 9,231	0.07 %	343,030	6.90 %		\$ 117	1.27 %	\$ –	\$
	2	0.15 to <0.25	9,409	379	47.57	3,257	0.20	46,059	8.21		114	3.50	1	
	3	0.25 to <0.50	6,896	164	48.40	2,670	0.31	42,159	8.37		133	4.98	1	
	4	0.50 to <0.75	5,251	390	52.69	2,062	0.51	18,232	8.47		146	7.08	1	
	5	0.75 to <2.50	5,360	67	48.04	1,742	1.20	20,140	8.35		212	12.17	2	
	6	2.50 to <10.00	1,197	18	40.60	276	5.42	7,429	6.93		67	24.28	1	
	7	10.00 to <100.00	341	3	72.18	67	26.41	2,104	5.56		20	29.85	1	
	8	100.00 (Default)	169	–	–	24	100.00	969	6.97		22	91.67	–	
	9	Total	77,027	18,826	51.75	19,329	0.56	480,122	7.62		831	4.30	7	17
Canada Uninsured ^{7,8}	10	0.00 to <0.15	174,373	71,709	48.99	209,504	0.06	799,950	18.36		6,195	2.96	23	
	11	0.15 to <0.25	37,890	3,828	47.98	39,727	0.19	124,326	22.80		3,751	9.44	17	
	12	0.25 to <0.50	20,350	1,642	46.23	21,109	0.31	80,511	24.42		3,041	14.41	16	
	13	0.50 to <0.75	10,107	1,209	51.77	10,733	0.51	31,634	23.99		2,163	20.15	13	
	14	0.75 to <2.50	10,447	681	50.55	10,791	1.22	30,011	22.63		3,564	33.03	29	
	15	2.50 to <10.00	1,758	27	48.20	1,771	5.65	8,416	16.85		1,044	58.95	16	
	16	10.00 to <100.00	482	5	58.77	485	32.19	2,303	15.02		356	73.40	28	
	17	100.00 (Default)	205	–	–	205	100.00	914	18.51		357	174.15	11	
	18	Total	255,612	79,101	48.94	294,325	0.31	1,078,065	19.74		20,471	6.96	153	36
U.S. Uninsured ⁷	19	0.00 to <0.15	24,565	12,181	65.53	32,546	0.06	113,964	28.51		1,441	4.43	5	
	20	0.15 to <0.25	5,397	516	38.94	5,598	0.19	21,316	26.64		615	10.99	3	
	21	0.25 to <0.50	4,033	397	38.28	4,185	0.32	22,836	27.42		683	16.32	4	
	22	0.50 to <0.75	3,770	209	36.77	3,847	0.56	8,685	31.14		1,064	27.66	7	
	23	0.75 to <2.50	4,007	211	33.16	4,077	1.32	15,445	29.75		1,896	46.50	16	
	24	2.50 to <10.00	924	58	11.85	931	6.01	5,593	28.23		963	103.44	15	
	25	10.00 to <100.00	275	10	8.47	276	25.81	2,383	26.61		406	147.10	18	
	26	100.00 (Default)	589	–	–	589	100.00	3,500	23.80		314	53.31	116	
	27	Total	43,560	13,582	62.51	52,049	1.60	193,722	28.45		7,382	14.18	184	46
Total residential secured	28		\$ 376,199	\$ 111,509	51.07 %	\$ 365,703	0.52 %	1,751,909	20.16 %		\$ 28,684	7.84 %	\$ 344	\$ 99

¹ Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

² Exposures based on obligors prior to CRM.

³ Exposures after CRM reflecting guarantor.

⁴ Number of retail accounts.

⁵ Average maturity is not used in the calculation of retail exposure RWA.

⁶ Total RWA as a percentage of post-CRM EAD.

⁷ Includes residential mortgages and HELOCs. Insured classification reflects when insurance on the exposure is used for CRM for reduction of RWA.

⁸ Includes government insured exposures (CMHC) and exposures insured by corporate entities. For post-CRM, government insured exposures are included in Sovereign.

⁹ Includes Canadian Personal and Commercial Banking, Wealth Management and Insurance, Wholesale Banking and Corporate segments.

IRB – Credit Risk Exposures by Portfolio and PD Range (CR6) – Qualifying Revolving Retail (QRR)

(\$ millions, except as noted)
As at

LINE #	2022 Q4													
	PD scale ¹		Original on-balance sheet gross exposure ²	Off-balance sheet exposures pre-CCF ²	Average CCF (%)	EAD post CRM and post-CCF ³	Average PD (%)	Number of obligors ⁴	Average LGD (%)	Average maturity (years) ⁵	RWA	RWA density ⁶	EL	Provisions
1	0.00 to <0.15	%	\$ 6,602	\$ 150,586	60.05	% \$ 97,030	0.05	18,104,945	87.25	%	\$ 2,741	2.82	% \$ 39	
2	0.15 to <0.25		2,397	15,252	60.30	11,594	0.19	2,229,300	88.88		1,134	9.78	20	
3	0.25 to <0.50		2,914	11,939	59.86	10,061	0.32	2,670,297	89.78		1,493	14.84	29	
4	0.50 to <0.75		3,613	10,213	57.88	9,524	0.53	1,568,139	90.13		2,117	22.23	45	
5	0.75 to <2.50		14,231	18,589	59.88	25,362	1.48	4,534,137	91.78		12,521	49.37	346	
6	2.50 to <10.00		8,988	3,403	60.77	11,056	5.39	3,101,684	91.52		13,396	121.16	545	
7	10.00 to <100.00		1,849	256	59.45	2,002	28.45	1,175,237	90.57		4,865	243.01	521	
8	100.00 (Default)		93	–	–	93	100.00	19,492	84.92		53	56.99	75	
9	Total		\$ 40,687	\$ 210,238	59.95	% \$ 166,722	1.07	33,403,231	88.69	%	\$ 38,320	22.98	% \$ 1,620	\$ 226
2022 Q3														
	PD scale ¹		Original on-balance sheet gross exposure ²	Off-balance sheet exposures pre-CCF ²	Average CCF (%)	EAD post CRM and post-CCF ³	Average PD (%)	Number of obligors ⁴	Average LGD (%)	Average maturity (years) ⁵	RWA	RWA density ⁶	EL	Provisions
10	0.00 to <0.15	%	\$ 7,240	\$ 146,174	61.10	% \$ 96,557	0.05	18,023,219	87.15	%	\$ 2,734	2.83	% \$ 39	
11	0.15 to <0.25		2,447	14,386	61.42	11,284	0.19	2,195,258	88.87		1,103	9.77	19	
12	0.25 to <0.50		2,929	11,125	60.98	9,713	0.32	2,615,871	89.72		1,439	14.82	28	
13	0.50 to <0.75		3,603	9,495	58.59	9,166	0.53	1,531,467	89.96		2,032	22.17	43	
14	0.75 to <2.50		14,024	16,528	60.45	24,015	1.49	4,515,861	91.41		11,832	49.27	328	
15	2.50 to <10.00		8,888	3,192	64.13	10,935	5.39	3,006,797	91.47		13,235	121.03	538	
16	10.00 to <100.00		1,601	185	64.24	1,719	26.66	947,764	89.78		4,140	240.84	415	
17	100.00 (Default)		96	–	–	96	100.00	18,076	85.46		55	57.29	78	
18	Total		\$ 40,828	\$ 201,085	61.00	% \$ 163,485	1.01	32,854,313	88.52	%	\$ 36,570	22.37	% \$ 1,488	\$ 197
2022 Q2														
	PD scale ¹		Original on-balance sheet gross exposure ²	Off-balance sheet exposures pre-CCF ²	Average CCF (%)	EAD post CRM and post-CCF ³	Average PD (%)	Number of obligors ⁴	Average LGD (%)	Average maturity (years) ⁵	RWA	RWA density ⁶	EL	Provisions
19	0.00 to <0.15	%	\$ 6,489	\$ 143,470	60.50	% \$ 93,294	0.05	17,281,541	86.56	%	\$ 2,740	2.94	% \$ 39	
20	0.15 to <0.25		2,367	15,107	60.76	11,546	0.19	2,387,339	87.90		1,115	9.66	20	
21	0.25 to <0.50		2,907	11,664	60.19	9,928	0.32	2,800,732	88.72		1,457	14.68	28	
22	0.50 to <0.75		3,535	9,336	58.31	8,979	0.53	1,661,353	88.92		1,970	21.94	42	
23	0.75 to <2.50		13,459	15,496	59.85	22,734	1.47	4,498,570	90.35		10,981	48.30	303	
24	2.50 to <10.00		8,471	3,222	63.52	10,517	5.46	3,301,969	90.25		12,662	120.40	518	
25	10.00 to <100.00		1,671	270	69.16	1,858	25.51	996,192	88.45		4,379	235.68	423	
26	100.00 (Default)		102	–	–	102	100.00	18,224	84.36		42	41.18	83	
27	Total		\$ 39,001	\$ 198,565	60.41	% \$ 158,958	1.03	32,945,920	87.73	%	\$ 35,346	22.24	% \$ 1,456	\$ 193

¹ Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

² Exposures based on obligors prior to CRM.

³ Exposures after CRM reflecting guarantor.

⁴ Number of retail accounts.

⁵ Average maturity is not used in the calculation of retail exposure RWA.

⁶ Total RWA to post-CRM EAD.

IRB – Credit Risk Exposures by Portfolio and PD Range (CR6) – Qualifying Revolving Retail (QRR) (Continued)

(\$ millions, except as noted)
As at

LINE #	2022 Q1													
	PD scale ¹		Original on-balance sheet gross exposure ²	Off-balance sheet exposures pre-CCF ²	Average CCF (%)	EAD post CRM and post-CCF ³	Average PD (%)	Number of obligors ⁴	Average LGD (%)	Average maturity (years) ⁵	RWA	RWA density ⁶	EL	Provisions
1	0.00 to <0.15	%	\$ 6,616	\$ 140,395	60.21	% \$ 91,149	0.05	17,092,445	86.28	%	\$ 2,690	2.95	% \$ 38	
2	0.15 to <0.25		2,359	15,032	60.24	11,414	0.19	2,389,394	87.80		1,101	9.65	19	
3	0.25 to <0.50		2,853	11,543	59.85	9,762	0.32	2,797,542	88.64		1,430	14.65	28	
4	0.50 to <0.75		3,467	9,250	57.83	8,816	0.53	1,639,534	88.85		1,931	21.90	41	
5	0.75 to <2.50		13,210	15,483	59.65	22,445	1.48	4,509,005	90.25		10,840	48.30	300	
6	2.50 to <10.00		8,254	3,310	65.09	10,408	5.44	3,272,650	90.19		12,496	120.06	510	
7	10.00 to <100.00		1,548	295	68.45	1,750	25.15	948,926	88.38		4,117	235.26	393	
8	100.00 (Default)		92	–	–	92	100.00	14,789	84.03		38	41.30	74	
9	Total		\$ 38,399	\$ 195,308	60.13	% \$ 155,836	1.01	32,664,285	87.54	%	\$ 34,643	22.23	% \$ 1,403	179
	2021 Q4													
	PD scale ¹		Original on-balance sheet gross exposure ²	Off-balance sheet exposures pre-CCF ²	Average CCF (%)	EAD post CRM and post-CCF ³	Average PD (%)	Number of obligors ⁴	Average LGD (%)	Average maturity (years) ⁵	RWA	RWA density ⁶	EL	Provisions
10	0.00 to <0.15	%	\$ 6,472	\$ 135,404	60.22	% \$ 88,017	0.05	16,668,631	85.97	%	\$ 2,608	2.96	% \$ 37	
11	0.15 to <0.25		2,285	15,059	59.89	11,304	0.19	2,424,146	87.50		1,086	9.61	19	
12	0.25 to <0.50		2,790	11,573	59.11	9,630	0.32	2,775,618	88.34		1,401	14.55	27	
13	0.50 to <0.75		3,410	9,028	57.95	8,642	0.53	1,566,669	88.71		1,895	21.93	41	
14	0.75 to <2.50		12,936	14,891	58.40	21,633	1.48	4,371,651	90.15		10,462	48.36	289	
15	2.50 to <10.00		8,146	3,080	62.91	10,083	5.42	3,253,244	90.16		12,077	119.78	492	
16	10.00 to <100.00		1,444	247	66.41	1,609	24.56	1,011,730	88.44		3,773	234.49	353	
17	100.00 (Default)		88	–	–	88	100.00	13,601	83.74		38	43.18	71	
18	Total		\$ 37,571	\$ 189,282	59.93	% \$ 151,006	0.99	32,085,290	87.29	%	\$ 33,340	22.08	% \$ 1,329	156

¹ Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

² Exposures based on obligors prior to CRM.

³ Exposures after CRM reflecting guarantor.

⁴ Number of retail accounts.

⁵ Average maturity is not used in the calculation of retail exposure RWA.

⁶ Total RWA to post-CRM EAD.

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

(\$ millions, except as noted)
As at

LINE #	2022 Q4												
	PD scale ¹	Original on-balance sheet gross exposure ²	Off-balance sheet exposures pre-CCF ²	Average CCF (%)	EAD post CRM and post-CCF ³	Average PD (%)	Number of obligors ⁴	Average LGD (%)	Average maturity (years) ⁵	RWA	RWA density ⁶	EL	Provisions
1	0.00 to <0.15 %	12,540 \$	5,259	70.94 %	16,272	0.08 %	684,101	36.67 %		\$ 1,293	7.95 %	\$ 5	
2	0.15 to <0.25	8,176	3,272	42.99	9,582	0.20	368,404	38.85		1,575	16.44	7	
3	0.25 to <0.50	16,187	1,111	64.84	16,907	0.32	509,113	33.92		3,381	20.00	19	
4	0.50 to <0.75	8,927	979	67.17	9,577	0.53	264,075	43.64		3,295	34.41	22	
5	0.75 to <2.50	26,792	1,599	62.28	27,277	1.48	818,938	50.21		16,642	61.01	207	
6	2.50 to <10.00	9,943	427	54.94	9,968	5.34	416,007	56.16		8,845	88.73	298	
7	10.00 to <100.00	2,178	51	53.46	2,196	26.44	108,180	53.93		2,757	125.55	313	
8	100.00 (Default)	403	5	100.00	396	100.00	15,050	46.86		412	104.04	155	
9	Total	85,146 \$	12,703	61.23 %	92,175	2.23 %	3,183,868	43.69 %		\$ 38,200	41.44 %	\$ 1,026	\$ 115
2022 Q3													
	PD scale ¹	Original on-balance sheet gross exposure ²	Off-balance sheet exposures pre-CCF ²	Average CCF (%)	EAD post CRM and post-CCF ³	Average PD (%)	Number of obligors ⁴	Average LGD (%)	Average maturity (years) ⁵	RWA	RWA density ⁶	EL	Provisions
10	0.00 to <0.15 %	12,511 \$	5,195	70.83 %	16,187	0.08 %	689,720	36.82 %		\$ 1,278	7.90 %	\$ 5	
11	0.15 to <0.25	7,930	3,181	43.04	9,300	0.20	369,751	38.62		1,521	16.35	7	
12	0.25 to <0.50	15,985	1,109	64.14	16,696	0.32	516,225	34.01		3,348	20.05	18	
13	0.50 to <0.75	8,656	954	66.57	9,283	0.53	265,665	43.52		3,185	34.31	21	
14	0.75 to <2.50	26,052	1,550	62.14	26,457	1.46	820,521	49.88		15,969	60.36	196	
15	2.50 to <10.00	8,961	413	56.30	9,009	5.33	397,361	56.07		7,980	88.58	271	
16	10.00 to <100.00	1,941	54	51.32	1,962	26.09	100,775	53.69		2,462	125.48	274	
17	100.00 (Default)	371	5	100.00	373	100.00	11,436	45.97		376	100.80	143	
18	Total	\$ 82,407	\$ 12,461	61.18 %	\$ 89,267	2.11 %	3,171,454	43.40 %		\$ 36,119	40.46 %	\$ 935	\$ 106
2022 Q2													
	PD scale ¹	Original on-balance sheet gross exposure ²	Off-balance sheet exposures pre-CCF ²	Average CCF (%)	EAD post CRM and post-CCF ³	Average PD (%)	Number of obligors ⁴	Average LGD (%)	Average maturity (years) ⁵	RWA	RWA density ⁶	EL	Provisions
19	0.00 to <0.15 %	12,663 \$	5,191	71.16 %	16,357	0.08 %	711,781	36.08 %		\$ 1,268	7.75 %	\$ 5	
20	0.15 to <0.25	7,822	3,195	42.96	9,195	0.20	385,443	37.72		1,467	15.95	7	
21	0.25 to <0.50	16,839	1,144	64.40	17,576	0.32	541,696	33.28		3,448	19.62	19	
22	0.50 to <0.75	8,510	965	67.06	9,150	0.53	283,430	43.13		3,111	34.00	21	
23	0.75 to <2.50	26,093	1,525	61.77	26,468	1.47	938,987	49.36		15,837	59.83	195	
24	2.50 to <10.00	8,652	396	55.55	8,717	5.35	453,806	56.33		7,760	89.02	262	
25	10.00 to <100.00	1,911	51	51.66	1,935	25.18	111,866	53.39		2,412	124.65	261	
26	100.00 (Default)	362	5	100.00	366	100.00	12,473	47.26		382	104.37	144	
27	Total	\$ 82,852	\$ 12,472	61.29 %	\$ 89,764	2.05 %	3,439,482	42.72 %		\$ 35,685	39.75 %	\$ 914	\$ 107

¹ Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

² Exposures based on obligors prior to CRM.

³ Exposures after CRM reflecting guarantor.

⁴ Number of retail accounts.

⁵ Average maturity is not used in the calculation of retail exposure RWA.

⁶ Total RWA as a percentage of post-CRM EAD.

IRB – Credit Risk Exposures by Portfolio and PD Range (CR6) – Other Retail (Continued)

(\$ millions, except as noted)
As at

LINE #	2022 Q1																										
	PD scale ¹		Original on-balance sheet gross exposure ²		Off-balance sheet exposures pre-CCF ²		Average CCF (%)		EAD post CRM and post-CCF ³		Average PD (%)		Number of obligors ⁴		Average LGD (%)		Average maturity (years) ⁵		RWA		RWA density ⁶		EL		Provisions		
1	0.00 to <0.15	%	\$	12,287	\$	5,214	71.38	%	\$	16,009	0.08	%	731,062	36.66	%				\$	1,257		7.85	%	\$	5		
2	0.15 to <0.25			7,653		3,235	43.19			9,050	0.20		399,856	38.22						1,464		16.18			7		
3	0.25 to <0.50			16,715		1,137	64.60			17,449	0.32		559,063	33.24						3,420		19.60			19		
4	0.50 to <0.75			8,538		942	67.12			9,161	0.53		291,771	43.48						3,139		34.26			21		
5	0.75 to <2.50			25,651		1,520	62.14			26,062	1.46		949,239	50.01						15,788		60.58			195		
6	2.50 to <10.00			8,599		383	55.06			8,725	5.36		473,124	56.25						7,757		88.91			263		
7	10.00 to <100.00			1,994		50	47.11			2,014	26.04		121,072	53.35						2,507		124.48			279		
8	100.00 (Default)			354		5	100.00			359	100.00		12,645	47.21						383		106.69			140		
9	Total		\$	81,791	\$	12,486	61.43	%	\$	88,829	2.10	%	3,537,832	43.11	%				\$	35,715		40.21	%	\$	929	\$	110
2021 Q4																											
	PD scale ¹		Original on-balance sheet gross exposure ²		Off-balance sheet exposures pre-CCF ²		Average CCF (%)		EAD post CRM and post-CCF ³		Average PD (%)		Number of obligors ⁴		Average LGD (%)		Average maturity (years) ⁵		RWA		RWA density ⁶		EL		Provisions		
10	0.00 to <0.15	%	\$	11,632	\$	5,180	71.57	%	\$	15,338	0.08	%	710,285	36.20	%				\$	1,182		7.71	%	\$	4		
11	0.15 to <0.25			7,477		3,264	43.14			8,886	0.20		395,617	37.57						1,414		15.91			7		
12	0.25 to <0.50			16,450		1,149	64.57			17,191	0.35		551,116	32.63						3,419		19.89			19		
13	0.50 to <0.75			8,516		946	66.85			9,145	0.53		292,622	41.23						2,973		32.51			20		
14	0.75 to <2.50			26,119		1,489	61.67			26,616	1.47		997,426	47.37						15,291		57.45			189		
15	2.50 to <10.00			8,714		395	54.08			8,886	5.32		482,314	53.84						7,555		85.02			254		
16	10.00 to <100.00			1,986		54	52.44			2,014	26.07		122,554	50.31						2,355		116.93			263		
17	100.00 (Default)			346		5	100.00			351	100.00		11,098	43.63						290		82.62			131		
18	Total		\$	81,240	\$	12,482	61.33	%	\$	88,427	2.12	%	3,563,032	41.65	%				\$	34,479		38.99	%	\$	887	\$	98

¹ Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

² Exposures based on obligors prior to CRM.

³ Exposures after CRM reflecting guarantor.

⁴ Number of retail accounts.

⁵ Average maturity is not used in the calculation of retail exposure RWA.

⁶ Total RWA as a percentage of post-CRM EAD.

IRB – Equities under the Simple Risk-Weight Method (CR10)¹

(\$ millions)
As at

Categories

Publicly traded equity exposures
Other equity exposures
Total

Categories

Publicly traded equity exposures
Other equity exposures
Total

Categories

Publicly traded equity exposures
Other equity exposures
Total

Categories

Publicly traded equity exposures
Other equity exposures
Total

Categories

Publicly traded equity exposures
Other equity exposures
Total

LINE #	2022 Q4					
	On-balance sheet amount	Off-balance sheet amount ²	Risk Weight		Exposure amount ³	RWA ⁴
1	\$ 8,771	\$ –	300	%	\$ 8,771	\$ 23,160
2	148	502	400		399	1,691
3	\$ 8,919	\$ 502			\$ 9,170	\$ 24,851
	2022 Q3					
	On-balance sheet amount	Off-balance sheet amount ²	Risk Weight		Exposure amount ³	RWA ⁴
4	\$ 11,208	\$ –	300	%	\$ 11,208	\$ 25,296
5	141	418	400		350	1,485
6	\$ 11,349	\$ 418			\$ 11,558	\$ 26,781
	2022 Q2					
	On-balance sheet amount	Off-balance sheet amount ²	Risk Weight		Exposure amount ³	RWA ⁴
7	\$ 12,837	\$ –	300	%	\$ 12,837	\$ 29,245
8	115	362	400		296	1,252
9	\$ 12,952	\$ 362			\$ 13,133	\$ 30,497
	2022 Q1					
	On-balance sheet amount	Off-balance sheet amount ²	Risk Weight		Exposure amount ³	RWA ⁴
10	\$ 13,472	\$ –	300	%	\$ 13,472	\$ 28,764
11	97	319	400		257	1,088
12	\$ 13,569	\$ 319			\$ 13,729	\$ 29,852
	2021 Q4					
	On-balance sheet amount	Off-balance sheet amount ²	Risk Weight		Exposure amount ³	RWA ⁴
13	\$ 13,306	\$ –	300	%	\$ 13,306	\$ 28,357
14	73	326	400		235	997
15	\$ 13,379	\$ 326			\$ 13,541	\$ 29,354

¹ As a result of the investment in Schwab, equity exposures are now risk weighted under the simple risk-weighted method.

² Off-balance sheet amounts are before CCF and CRM.

³ Exposure amounts are post CCF and CRM.

⁴ RWA reflects the reduction related to the portion of equity positions deducted from capital.

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

(\$ millions, except as noted)
As at

LINE #	2022 Q4					
	Replacement cost	Potential future exposure	Effective expected positive exposure (EEPE)	Alpha used for computing regulatory EAD	EAD post-CRM ²	RWA
1	\$ 22,550	\$ 27,964		1.4	\$ 70,720	\$ 8,685
2	—	—		—	—	—
3				—	—	—
4					—	—
5					360,838	2,538
6					—	—
7					\$ 431,558	\$ 11,223
2022 Q3						
	Replacement cost	Potential future exposure	Effective expected positive exposure (EEPE)	Alpha used for computing regulatory EAD	EAD post-CRM ²	RWA
8	\$ 15,237	\$ 29,095		1.4	\$ 62,065	\$ 8,694
9	—	—		—	—	—
10				—	—	—
11					—	—
12					351,901	2,304
13					—	—
14					\$ 413,966	\$ 10,998
2022 Q2						
	Replacement cost	Potential future exposure	Effective expected positive exposure (EEPE)	Alpha used for computing regulatory EAD	EAD post-CRM ²	RWA
15	\$ 18,341	\$ 28,661		1.4	\$ 65,802	\$ 8,348
16	—	—		—	—	—
17				—	—	—
18					—	—
19					371,122	1,925
20					—	—
21					\$ 436,924	\$ 10,273
2022 Q1						
	Replacement cost	Potential future exposure	Effective expected positive exposure (EEPE)	Alpha used for computing regulatory EAD	EAD post-CRM ²	RWA
22	\$ 9,479	\$ 30,440		1.4	\$ 55,886	\$ 8,261
23	—	—		—	—	—
24				—	—	—
25					—	—
26					376,344	2,124
27					—	—
28					\$ 432,230	\$ 10,385

SA-CCR (for derivatives)
Current exposure method (for derivatives)
Internal model method (for derivatives and SFTs)
Simple approach for credit risk mitigation (for SFTs)
Comprehensive approach for credit risk mitigation (for SFTs)
VaR for SFTs
Total

SA-CCR (for derivatives)
Current exposure method (for derivatives)
Internal model method (for derivatives and SFTs)
Simple approach for credit risk mitigation (for SFTs)
Comprehensive approach for credit risk mitigation (for SFTs)
VaR for SFTs
Total

SA-CCR (for derivatives)
Current exposure method (for derivatives)
Internal model method (for derivatives and SFTs)
Simple approach for credit risk mitigation (for SFTs)
Comprehensive approach for credit risk mitigation (for SFTs)
VaR for SFTs
Total

SA-CCR (for derivatives)
Current exposure method (for derivatives)
Internal model method (for derivatives and SFTs)
Simple approach for credit risk mitigation (for SFTs)
Comprehensive approach for credit risk mitigation (for SFTs)
VaR for SFTs
Total

¹ Excludes exposures and RWA for QCCPs and CVA.

² Collateral for repo-style transactions is reflected in the LGD as opposed to EAD.

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

(\$ millions, except as noted)
As at

LINE #	2021 Q4						
	Replacement cost	Potential future exposure	Effective expected positive exposure (EEPE)	Alpha used for computing regulatory EAD	EAD post-CRM ²	RWA	
1	\$ 8,824	\$ 28,896		1.4	\$ 52,808	\$ 8,467	
2	-	-		-	-	-	
3			-	-	-	-	
4					-	-	
5					368,340	2,691	
6					-	-	
7					\$ 421,148	\$ 11,158	

¹ Excludes exposures and RWA for QCCPs and CVA.

² Collateral for repo-style transactions is reflected in the LGD as opposed to EAD.

Credit Valuation Adjustment (CVA) Capital Charge (CCR2)

(\$ millions) As at	LINE #	2022 Q4	2022 Q3	2022 Q2	2022 Q1
Total portfolios subject to the Advanced CVA capital charge					
i) VaR component (including the 3x multiplier)	1	\$ —	\$ —	\$ —	\$ —
ii) Stressed VaR component (including the 3x multiplier)	2				
All portfolios subject to the standardized CVA capital charge	3	46,883	41,270	43,893	37,211
Total subject to the CVA capital charge	4	\$ 46,883	\$ 41,270	\$ 43,893	\$ 37,211
		2021 Q4			
Total portfolios subject to the Advanced CVA capital charge					
i) VaR component (including the 3x multiplier)	5	\$ —	\$ —		
ii) Stressed VaR component (including the 3x multiplier)	6				
All portfolios subject to the standardized CVA capital charge	7	35,168	7,259		
Total subject to the CVA capital charge	8	\$ 35,168	\$ 7,259		

CCR Exposures by Portfolio and PD Scale (CCR4) – Corporate¹

(\$ millions, except as noted)
As at

LINE #	2022 Q4								
	PD scale ²	EAD post-CRM	Average PD	Number of obligors ³	Average LGD	Average maturity (years)	RWA	RWA density ⁴	
1	0.00 to <0.15 % \$	241,736	0.05 %	4,042	5.06 %	0.4 \$	4,352	1.80 %	
2	0.15 to <0.25	17,239	0.20	741	6.77	0.2	775	4.50	
3	0.25 to <0.50	8,171	0.37	854	5.89	0.4	516	6.32	
4	0.50 to <0.75	814	0.67	352	17.55	0.7	212	26.04	
5	0.75 to <2.50	3,069	1.95	695	17.81	0.6	1,168	38.06	
6	2.50 to <10.00	363	5.32	136	12.94	0.2	173	47.66	
7	10.00 to <100.00	90	27.94	123	14.95	0.7	71	78.89	
8	100.00 (Default)	1	100.00	4	78.40	5.0	5	500.00	
9	Total \$	271,483	0.11 %	6,947	5.39 %	0.4 \$	7,272	2.68 %	
2022 Q3									
	PD scale ²	EAD post-CRM	Average PD	Number of obligors ³	Average LGD	Average maturity (years)	RWA	RWA density ⁴	
10	0.00 to <0.15 % \$	226,281	0.05 %	4,222	5.23 %	0.4 \$	4,073	1.80 %	
11	0.15 to <0.25	15,088	0.20	707	8.28	0.3	810	5.37	
12	0.25 to <0.50	9,203	0.37	887	6.66	0.4	643	6.99	
13	0.50 to <0.75	1,037	0.68	367	14.37	0.8	234	22.57	
14	0.75 to <2.50	2,715	1.93	697	17.32	1.0	1,092	40.22	
15	2.50 to <10.00	351	5.54	140	15.21	0.3	199	56.70	
16	10.00 to <100.00	28	19.25	129	28.88	4.3	47	167.86	
17	100.00 (Default)	1	100.00	7	64.71	4.7	9	900.00	
18	Total \$	254,704	0.11 %	7,156	5.64 %	0.4 \$	7,107	2.79 %	
2022 Q2									
	PD scale ²	EAD post-CRM	Average PD	Number of obligors ³	Average LGD	Average maturity (years)	RWA	RWA density ⁴	
19	0.00 to <0.15 % \$	243,064	0.05 %	3,969	4.18 %	0.4 \$	3,512	1.44 %	
20	0.15 to <0.25	13,061	0.20	680	7.46	0.3	655	5.01	
21	0.25 to <0.50	9,651	0.40	890	6.13	0.4	635	6.58	
22	0.50 to <0.75	976	0.68	366	12.03	0.8	183	18.75	
23	0.75 to <2.50	2,632	1.98	744	19.67	1.0	1,181	44.87	
24	2.50 to <10.00	414	5.50	148	12.84	0.2	193	46.62	
25	10.00 to <100.00	30	21.15	129	31.47	4.1	56	186.67	
26	100.00 (Default)	1	100.00	10	59.64	4.2	10	1,000.00	
27	Total \$	269,829	0.10 %	6,936	4.60 %	0.4 \$	6,425	2.38 %	

¹ Collateral for repo-style transactions is reflected in the LGD as opposed to EAD.

² Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

³ Total number of obligors is total number of unique borrowers and may not add as certain borrowers may be represented in more than one PD scale.

⁴ Total RWA as a percentage of post-CRM EAD.

CCR Exposures by Portfolio and PD Scale (CCR4) – Corporate (Continued)¹

(\$ millions, except as noted)
As at

LINE #	2022 Q1									
	PD scale ²	EAD post-CRM	Average PD	Number of obligors ³	Average LGD	Average maturity (years)	RWA	RWA density ⁴		
1	0.00 to <0.15 % \$	239,889	0.05 %	4,002	3.87 %	0.4 \$	3,008	1.25 %		
2	0.15 to <0.25	17,765	0.20	672	8.96	0.3	1,098	6.18		
3	0.25 to <0.50	12,746	0.40	876	4.67	0.4	664	5.21		
4	0.50 to <0.75	860	0.68	375	17.55	1.5	264	30.70		
5	0.75 to <2.50	2,949	1.84	780	15.56	1.0	1,029	34.89		
6	2.50 to <10.00	624	6.03	156	11.43	0.4	263	42.15		
7	10.00 to <100.00	101	20.01	148	26.99	4.2	162	160.40		
8	100.00 (Default)	5	100.00	10	48.72	4.4	31	620.00		
9	Total	\$ 274,939	0.12 %	7,019	4.43 %	0.4 \$	6,519	2.37 %		
2021 Q4										
	PD scale ²	EAD post-CRM	Average PD	Number of obligors ³	Average LGD	Average maturity (years)	RWA	RWA density ⁴		
10	0.00 to <0.15 % \$	227,185	0.05 %	3,907	3.71 %	0.4 \$	2,770	1.22 %		
11	0.15 to <0.25	19,317	0.20	651	7.92	0.3	1,069	5.53		
12	0.25 to <0.50	15,597	0.37	882	4.85	0.3	863	5.53		
13	0.50 to <0.75	11,281	0.68	335	2.90	0.3	548	4.86		
14	0.75 to <2.50	2,909	1.72	869	17.54	1.3	1,178	40.50		
15	2.50 to <10.00	773	6.20	160	11.01	0.5	319	41.27		
16	10.00 to <100.00	198	19.31	165	25.83	3.4	290	146.46		
17	100.00 (Default)	6	100.00	10	47.06	4.3	36	600.00		
18	Total	\$ 277,266	0.16 %	6,979	4.22 %	0.4 \$	7,073	2.55 %		

¹ Collateral for repo-style transactions is reflected in the LGD as opposed to EAD.

² Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

³ Total number of obligors is total number of unique borrowers and may not add as certain borrowers may be represented in more than one PD scale.

⁴ Total RWA as a percentage of post-CRM EAD.

CCR Exposures by Portfolio and PD Scale (CCR4) – Sovereign¹

(\$ millions, except as noted)
As at

LINE #	2022 Q4								
	PD scale ²	EAD post-CRM	Average PD	Number of obligors ³	Average LGD	Average maturity (years)	RWA	RWA density ⁴	
1	0.00 to <0.15 % \$	59,671	0.02 %	182	2.12 %	1.2 \$	185	0.31 %	
2	0.15 to <0.25	—	—	—	—	—	—	—	
3	0.25 to <0.50	—	0.38	3	29.46	0.6	—	—	
4	0.50 to <0.75	6	0.68	1	54.50	1.0	5	83.33	
5	0.75 to <2.50	9	2.14	4	13.60	1.0	3	33.33	
6	2.50 to <10.00	2	4.69	1	4.34	—	—	—	
7	10.00 to <100.00	9	20.05	2	64.48	5.0	35	388.89	
8	100.00 (Default)	—	—	—	—	—	—	—	
9	Total \$	59,697	0.03 %	193	2.13 %	1.2 \$	228	0.38 %	
2022 Q3									
	PD scale ²	EAD post-CRM	Average PD	Number of obligors ³	Average LGD	Average maturity (years)	RWA	RWA density ⁴	
10	0.00 to <0.15 % \$	54,687	0.02 %	202	2.80 %	1.0 \$	153	0.28 %	
11	0.15 to <0.25	—	—	—	—	—	—	—	
12	0.25 to <0.50	2	0.43	4	49.52	1.0	1	50.00	
13	0.50 to <0.75	16	0.68	1	54.50	1.0	12	75.00	
14	0.75 to <2.50	13	2.14	5	13.60	1.0	4	30.77	
15	2.50 to <10.00	2	4.69	1	4.34	—	—	—	
16	10.00 to <100.00	15	23.23	2	63.85	5.0	59	393.33	
17	100.00 (Default)	—	—	—	—	—	—	—	
18	Total \$	54,735	0.03 %	215	2.84 %	1.0 \$	229	0.42 %	
2022 Q2									
	PD scale ²	EAD post-CRM	Average PD	Number of obligors ³	Average LGD	Average maturity (years)	RWA	RWA density ⁴	
19	0.00 to <0.15 % \$	62,402	0.02 %	194	4.38 %	0.8 \$	141	0.23 %	
20	0.15 to <0.25	—	0.20	1	3.65	5.0	—	—	
21	0.25 to <0.50	2	0.43	3	13.60	1.0	—	—	
22	0.50 to <0.75	12	0.56	2	64.45	4.8	18	150.00	
23	0.75 to <2.50	8	2.14	5	13.60	1.0	2	25.00	
24	2.50 to <10.00	3	4.69	1	4.34	—	—	—	
25	10.00 to <100.00	3	40.39	1	60.50	5.0	12	400.00	
26	100.00 (Default)	—	—	—	—	—	—	—	
27	Total \$	62,430	0.02 %	207	4.39 %	0.8 \$	173	0.28 %	

¹ Collateral for repo-style transactions is reflected in the LGD as opposed to EAD.

² Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

³ Total number of obligors is total number of unique borrowers and may not add as certain borrowers may be represented in more than one PD scale.

⁴ Total RWA as a percentage of post-CRM EAD.

CCR Exposures by Portfolio and PD Scale (CCR4) – Sovereign (Continued)¹

(\$ millions, except as noted)
As at

LINE #	2022 Q1									
	PD scale ²	EAD post-CRM	Average PD	Number of obligors ³	Average LGD	Average maturity (years)	RWA	RWA density ⁴		
1	0.00 to <0.15 % \$	64,514	0.02 %	196	3.65 %	0.6 \$	136	0.21 %		
2	0.15 to <0.25	1	0.20	2	7.59	3.1	–	–		
3	0.25 to <0.50	–	0.29	2	13.60	–	–	–		
4	0.50 to <0.75	2	0.68	1	54.50	1.0	2	100.00		
5	0.75 to <2.50	10	2.14	7	13.60	1.0	3	30.00		
6	2.50 to <10.00	3	4.69	1	4.34	–	–	–		
7	10.00 to <100.00	22	25.02	2	63.50	5.0	85	386.36		
8	100.00 (Default)	–	–	–	–	–	–	–		
9	Total	\$ 64,552	0.03 %	211	3.67 %	0.6 \$	226	0.35 %		
2021 Q4										
	PD scale ²	EAD post-CRM	Average PD	Number of obligors ³	Average LGD	Average maturity (years)	RWA	RWA density ⁴		
10	0.00 to <0.15 % \$	46,912	0.02 %	182	3.57 %	0.7 \$	120	0.26 %		
11	0.15 to <0.25	2	0.20	2	10.01	2.0	–	–		
12	0.25 to <0.50	4	0.43	3	49.88	1.0	2	50.00		
13	0.50 to <0.75	2	0.68	1	54.50	1.0	1	50.00		
14	0.75 to <2.50	6	2.14	5	13.60	1.0	2	33.33		
15	2.50 to <10.00	3	4.70	1	4.40	–	–	–		
16	10.00 to <100.00	25	17.89	2	60.55	5.0	91	364.00		
17	100.00 (Default)	–	–	–	–	–	–	–		
18	Total	\$ 46,954	0.03 %	196	3.61 %	0.7 \$	216	0.46 %		

¹ Collateral for repo-style transactions is reflected in the LGD as opposed to EAD.

² Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

³ Total number of obligors is total number of unique borrowers and may not add as certain borrowers may be represented in more than one PD scale.

⁴ Total RWA as a percentage of post-CRM EAD.

CCR Exposures by Portfolio and PD Scale (CCR4) – Bank¹

(\$ millions, except as noted)
As at

LINE #	2022 Q4							
	PD scale ²	EAD post-CRM	Average PD	Number of obligors ³	Average LGD	Average maturity (years)	RWA	RWA density ⁴
1	0.00 to <0.15 % \$	99,820	0.05 %	342	13.95 %	0.4 \$	3,697	3.70 %
2	0.15 to <0.25	103	0.20	16	16.57	0.3	10	9.71
3	0.25 to <0.50	364	0.29	14	1.81	–	7	1.92
4	0.50 to <0.75	40	0.68	5	8.22	0.1	4	10.00
5	0.75 to <2.50	49	2.14	4	4.88	–	5	10.20
6	2.50 to <10.00	2	4.69	2	4.34	–	–	–
7	10.00 to <100.00	–	18.15	1	19.75	2.4	–	–
8	100.00 (Default)	–	–	–	–	–	–	–
9	Total	\$ 100,378	0.05 %	384	13.90 %	0.4 \$	3,723	3.71 %
2022 Q3								
	PD scale ²	EAD post-CRM	Average PD	Number of obligors ³	Average LGD	Average maturity (years)	RWA	RWA density ⁴
10	0.00 to <0.15 % \$	104,180	0.05 %	339	13.36 %	0.4 \$	3,639	3.49 %
11	0.15 to <0.25	86	0.20	13	6.80	0.2	4	4.65
12	0.25 to <0.50	220	0.29	18	3.08	0.3	11	5.00
13	0.50 to <0.75	11	0.68	4	14.60	0.9	3	27.27
14	0.75 to <2.50	29	1.76	4	8.27	–	5	17.24
15	2.50 to <10.00	1	4.69	2	4.34	–	–	–
16	10.00 to <100.00	–	18.15	1	19.75	2.7	–	–
17	100.00 (Default)	–	–	–	–	–	–	–
18	Total	\$ 104,527	0.05 %	381	13.33 %	0.4 \$	3,662	3.50 %
2022 Q2								
	PD scale ²	EAD post-CRM	Average PD	Number of obligors ³	Average LGD	Average maturity (years)	RWA	RWA density ⁴
19	0.00 to <0.15 % \$	104,044	0.05 %	340	13.48 %	0.4 \$	3,651	3.51 %
20	0.15 to <0.25	477	0.20	13	2.23	0.1	7	1.47
21	0.25 to <0.50	55	0.30	16	11.19	1.0	8	14.55
22	0.50 to <0.75	8	0.68	4	15.52	1.0	2	25.00
23	0.75 to <2.50	80	1.53	5	5.51	–	7	8.75
24	2.50 to <10.00	1	4.69	2	2.77	–	–	–
25	10.00 to <100.00	–	18.15	1	19.75	2.9	–	–
26	100.00 (Default)	–	–	–	–	–	–	–
27	Total	\$ 104,665	0.05 %	381	13.42 %	0.4 \$	3,675	3.51 %

¹ Collateral for repo-style transactions is reflected in the LGD as opposed to EAD.

² Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

³ Total number of obligors is total number of unique borrowers and may not add as certain borrowers may be represented in more than one PD scale.

⁴ Total RWA as a percentage of post-CRM EAD.

CCR Exposures by Portfolio and PD Scale (CCR4) – Bank (Continued)¹

(\$ millions, except as noted)
As at

LINE #	2022 Q1									
	PD scale ²	EAD post-CRM	Average PD	Number of obligors ³	Average LGD	Average maturity (years)	RWA	RWA density ⁴		
1	0.00 to <0.15 % \$	92,338	0.05 %	335	15.00 %	0.4 \$	3,600	3.90 %		
2	0.15 to <0.25	290	0.20	17	2.95	0.1	6	2.07		
3	0.25 to <0.50	36	0.41	13	56.80	1.7	26	72.22		
4	0.50 to <0.75	4	0.68	4	38.01	4.2	3	75.00		
5	0.75 to <2.50	71	1.39	6	3.97	—	5	7.04		
6	2.50 to <10.00	—	4.69	2	4.34	—	—	—		
7	10.00 to <100.00	—	18.15	1	19.75	3.2	—	—		
8	100.00 (Default)	—	—	—	—	—	—	—		
9	Total	\$ 92,739	0.05 %	378	14.98 %	0.4 \$	3,640	3.92 %		
	2021 Q4									
	PD scale ²	EAD post-CRM	Average PD	Number of obligors ³	Average LGD	Average maturity (years)	RWA	RWA density ⁴		
10	0.00 to <0.15 % \$	96,419	0.05 %	338	15.44 %	0.4 \$	3,813	3.95 %		
11	0.15 to <0.25	391	0.20	13	3.41	0.1	9	2.30		
12	0.25 to <0.50	44	0.41	16	65.68	1.5	34	77.27		
13	0.50 to <0.75	4	0.68	4	50.97	4.4	6	150.00		
14	0.75 to <2.50	70	1.23	6	6.09	—	7	10.00		
15	2.50 to <10.00	—	4.70	1	4.40	—	—	—		
16	10.00 to <100.00	—	18.15	1	15.70	3.4	—	—		
17	100.00 (Default)	—	—	—	—	—	—	—		
18	Total	\$ 96,928	0.05 %	379	15.41 %	0.4 \$	3,869	3.99 %		

¹ Collateral for repo-style transactions is reflected in the LGD as opposed to EAD.

² Prescribed PD bands based on Pillar 3 disclosure requirements by BCBS.

³ Total number of obligors is total number of unique borrowers and may not add as certain borrowers may be represented in more than one PD scale.

⁴ Total RWA as a percentage of post-CRM EAD.

Composition of Collateral for CCR Exposure (CCR5)

(\$ millions) As at		LINE	2022 Q4				2022 Q3			
		#								
			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		Fair value of posted collateral	
			Segregated	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated
Cash – domestic currency		1	\$ –	\$ 2,271	\$ –	\$ 1,904	\$ 50,357	\$ 65,710	\$ –	\$ 1,863
Cash – other currencies		2	65	11,709	41	10,669	76,176	107,206	95	10,064
Domestic sovereign debt		3	786	2,717	3,701	2,581	107,038	88,568	980	1,421
Other sovereign debt		4	3,360	563	1,123	4,963	89,300	74,060	2,902	644
Government agency debt		5	149	33	58	–	14,218	29,012	275	143
Corporate bonds		6	267	485	443	–	10,233	14,498	371	357
Equity securities		7	155	–	–	–	30,447	63,300	6	–
Other collateral		8	494	–	23	–	10	83	408	–
Total		9	\$ 5,276	\$ 17,778	\$ 5,389	\$ 20,117	\$ 377,779	\$ 442,437	\$ 5,037	\$ 14,492
			2022 Q2				2022 Q1			
			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		Fair value of posted collateral	
			Segregated	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated	Segregated	Unsegregated
Cash – domestic currency		10	\$ 396	\$ 2,265	\$ –	\$ 1,588	\$ 51,647	\$ 69,040	\$ 229	\$ 1,779
Cash – other currencies		11	70	14,472	1,880	9,213	77,878	111,520	7	7,927
Domestic sovereign debt		12	1,131	2,083	3,825	3,534	115,008	96,000	891	1,600
Other sovereign debt		13	3,104	1,454	1,167	5,808	89,916	73,168	2,418	943
Government agency debt		14	361	29	65	–	13,783	28,224	521	1
Corporate bonds		15	280	762	315	–	7,775	14,090	361	274
Equity securities		16	90	–	–	–	31,667	54,387	38	–
Other collateral		17	344	–	–	–	10	15	154	–
Total		18	\$ 5,776	\$ 21,065	\$ 7,252	\$ 20,143	\$ 387,684	\$ 446,444	\$ 4,619	\$ 12,524
			2021 Q4							
			Collateral used in derivative transactions		Collateral used in SFTs					
			Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received		Fair value of posted collateral	
			Segregated	Unsegregated	Segregated	Unsegregated	of collateral received		of posted collateral	
Cash – domestic currency		19	\$ –	\$ 1,840	\$ –	\$ 2,943	\$ 67,763	\$ 68,171		
Cash – other currencies		20	1	5,902	44	7,212	81,688	115,218		
Domestic sovereign debt		21	442	1,159	624	3,938	111,814	109,594		
Other sovereign debt		22	2,648	482	2,131	3,695	95,526	75,660		
Government agency debt		23	253	132	267	4	11,696	27,120		
Corporate bonds		24	255	454	686	–	6,781	16,890		
Equity securities		25	2	–	–	–	30,667	51,858		
Other collateral		26	340	–	–	–	13	106		
Total		27	\$ 3,941	\$ 9,969	\$ 3,752	\$ 17,792	\$ 405,948	\$ 464,617		

Credit Derivatives Exposures (CCR6)

(\$ millions) As at	LINE #	2022 Q4		2022 Q3		2022 Q2		2022 Q1		2021 Q4	
		Protection bought	Protection sold	Protection bought	Protection sold	Protection bought	Protection sold	Protection bought	Protection sold	Protection bought	Protection sold
Notionals											
Single-name credit default swaps	1	\$ 3,318	\$ 2,280	\$ 3,025	\$ 1,728	\$ 3,340	\$ 1,712	\$ 3,530	\$ 1,727	\$ 4,016	\$ 1,578
Index credit default swaps	2	8,144	774	6,376	993	5,431	1,059	7,216	2,009	6,405	1,386
Total return swaps	3	—	—	—	—	—	—	—	—	—	—
Credit options	4	—	—	—	—	—	—	—	—	—	—
Other credit derivatives	5	342	4,762	323	3,579	329	3,562	337	3,722	329	3,839
Total notionals	6	11,804	7,816	9,724	6,300	9,100	6,333	11,083	7,458	10,750	6,803
Fair values											
Positive fair value (asset)	7	11	47	12	47	12	43	13	83	11	21
Negative fair value (liability)	8	(127)	(12)	(134)	(11)	(165)	(8)	(288)	(8)	(350)	(8)

Exposures to Central Counterparties (CCR8)¹

(\$ millions) As at	LINE #	2022 Q4	2022 Q3	2022 Q2	2022 Q1	2021 Q4					
		EAD post-CRM	RWA	EAD post-CRM	RWA	EAD post-CRM	RWA	EAD post-CRM	RWA	EAD post-CRM	RWA
Exposures to QCCPs (total)	1	\$ 1,218	\$ 995	\$ 1,112	\$ 993	\$ 863					
Exposures for trades at QCCPs (excluding initial margin and default fund contributions) – of which:	2	31,976	639	24,563	491	25,237	505	24,497	490		
(i) OTC derivatives	3	21,974	439	15,668	313	17,435	349	15,495	310		
(ii) Exchange-traded derivatives	4	6,256	125	5,596	112	5,219	104	5,450	109		
(iii) Securities financing transactions	5	3,746	75	3,299	66	2,583	52	3,552	71		
(iv) Netting sets where cross-product netting has been approved	6	–	–	–	–	–	–	–	–		
Segregated initial margin	7	41	41	92	92	92					
Non-segregated initial margin	8	4,588	–	4,651	–	6,661	–	5,972	–		
Pre-funded default fund contributions	9	1,120	579	1,036	504	966	488	937	373		
Unfunded default fund contributions	10	–	–	–	–	–	–	–	–		

¹ The Bank does not have any exposure to non-qualifying central counterparties.

Derivatives – Notional

(\$ millions) As at		LINE #	2022 Q4						2022 Q3					
			Trading						Trading					
			Over-the-counter ¹						Over-the-counter ¹					
			Clearing house ²	Non-clearing house	Exchange-traded	Total	Non-trading	Total	Clearing house ²	Non-clearing house	Exchange-traded	Total	Non-trading	Total
Interest Rate Contracts														
Futures	1		\$ –	\$ –	\$ 1,191,392	\$ 1,191,392	\$ –	\$ 1,191,392	\$ –	\$ –	\$ 947,389	\$ 947,389	\$ –	\$ 947,389
Forward rate agreements	2		525,542	10,788	–	536,330	501	536,831	433,920	4,943	–	438,863	563	439,426
Swaps	3		14,156,659	418,241	–	14,574,900	1,955,639	16,530,539	13,378,593	387,952	–	13,766,545	1,743,606	15,510,151
Options written	4		–	78,984	117,942	196,926	34	196,960	–	74,058	128,820	202,878	132	203,010
Options purchased	5		–	83,202	125,056	208,258	967	209,225	–	71,649	124,997	196,646	3,281	199,927
	6		14,682,201	591,215	1,434,390	16,707,806	1,957,141	18,664,947	13,812,513	538,602	1,201,206	15,552,321	1,747,582	17,299,903
Foreign Exchange Contracts														
Futures	7		–	–	–	–	–	–	–	–	–	–	–	–
Forward contracts	8		–	234,747	–	234,747	29,562	264,309	–	191,859	–	191,859	35,590	227,449
Swaps	9		912	1,912,924	–	1,913,836	2,049	1,915,885	–	2,133,103	–	2,133,103	1,407	2,134,510
Cross-currency interest rate swaps	10		–	1,099,221	–	1,099,221	104,988	1,204,209	–	1,030,403	–	1,030,403	95,405	1,125,808
Options written	11		–	35,501	84	35,585	–	35,585	–	26,063	54	26,117	–	26,117
Options purchased	12		–	26,559	10	26,569	–	26,569	–	17,890	9	17,899	–	17,899
	13		912	3,308,952	94	3,309,958	136,599	3,446,557	–	3,399,318	63	3,399,381	132,402	3,531,783
Credit Derivative Contracts														
Credit default swaps														
Protection purchased	14		9,735	91	–	9,826	3,378	13,204	7,679	60	–	7,739	3,069	10,808
Protection sold	15		2,843	211	–	3,054	–	3,054	2,516	205	–	2,721	–	2,721
	16		12,578	302	–	12,880	3,378	16,258	10,195	265	–	10,460	3,069	13,529
Other Contracts														
Equity contracts	17		–	74,652	89,202	163,854	27,620	191,474	–	74,111	82,801	156,912	28,368	185,280
Commodity contracts	18		363	74,724	60,070	135,157	–	135,157	–	73,738	53,986	127,724	–	127,724
	19		363	149,376	149,272	299,011	27,620	326,631	–	147,849	136,787	284,636	28,368	313,004
Total	20		\$ 14,696,054	\$ 4,049,845	\$ 1,583,756	\$ 20,329,655	\$ 2,124,738	\$ 22,454,393	\$ 13,822,708	\$ 4,086,034	\$ 1,338,056	\$ 19,246,798	\$ 1,911,421	\$ 21,158,219
			2022 Q2						2022 Q1					
			Trading						Trading					
			Over-the-counter ¹						Over-the-counter ¹					
			Clearing house ²	Non-clearing house	Exchange-traded	Total	Non-trading	Total	Clearing house ²	Non-clearing house	Exchange-traded	Total	Non-trading	Total
Interest Rate Contracts														
Futures	21		\$ –	\$ –	\$ 1,177,016	\$ 1,177,016	\$ –	\$ 1,177,016	\$ –	\$ –	\$ 1,285,498	\$ 1,285,498	\$ –	\$ 1,285,498
Forward rate agreements	22		307,066	15,632	–	322,698	732	323,430	241,391	10,453	–	251,844	906	252,750
Swaps	23		12,920,048	384,594	–	13,304,642	1,465,932	14,770,574	11,803,305	383,058	–	12,186,363	1,471,317	13,657,680
Options written	24		–	71,454	131,356	202,810	215	203,025	–	75,924	83,175	159,099	446	159,545
Options purchased	25		–	73,114	120,461	193,575	2,932	196,507	–	74,472	87,368	161,840	2,308	164,148
	26		13,227,114	544,794	1,428,833	15,200,741	1,469,811	16,670,552	12,044,696	543,907	1,456,041	14,044,644	1,474,977	15,519,621
Foreign Exchange Contracts														
Futures	27		–	–	–	–	–	–	–	–	–	–	–	–
Forward contracts	28		–	199,528	–	199,528	40,242	239,770	–	222,317	–	222,317	32,638	254,955
Swaps	29		–	2,210,058	–	2,210,058	1,697	2,211,755	–	2,403,026	–	2,403,026	2,116	2,405,142
Cross-currency interest rate swaps	30		–	1,055,665	–	1,055,665	86,029	1,141,694	–	1,131,397	–	1,131,397	75,655	1,207,052
Options written	31		–	30,152	69	30,221	–	30,221	–	22,421	83	22,504	–	22,504
Options purchased	32		–	22,503	27	22,530	–	22,530	–	16,602	26	16,628	–	16,628
	33		–	3,517,906	96	3,518,002	127,968	3,645,970	–	3,795,763	109	3,795,872	110,409	3,906,281
Credit Derivative Contracts														
Credit default swaps														
Protection purchased	34		6,732	124	–	6,856	3,117	9,973	8,617	23	–	8,640	3,445	12,085
Protection sold	35		2,484	286	–	2,770	–	2,770	3,463	273	–	3,736	–	3,736
	36		9,216	410	–	9,626	3,117	12,743	12,080	296	–	12,376	3,445	15,821
Other Contracts														
Equity contracts	37		–	81,984	89,145	171,129	27,604	198,733	–	86,770	95,219	181,989	31,560	213,549
Commodity contracts	38		–	70,148	63,030	133,178	–	133,178	–	58,805	48,001	106,806	–	106,806
	39		–	152,132	152,175	304,307	27,604	331,911	–	145,575	143,220	288,795	31,560	320,355
Total	40		\$ 13,236,330	\$ 4,215,242	\$ 1,581,104	\$ 19,032,676	\$ 1,628,500	\$ 20,661,176	\$ 12,056,776	\$ 4,485,541	\$ 1,599,370	\$ 18,141,687	\$ 1,620,391	\$ 19,762,078

¹ Collateral held under a Credit Support Annex (CSA) to help reduce CCR is in the form of high-quality and liquid assets such as cash and high-quality government securities. Acceptable collateral is governed by the Collateralized Trading Policy.

² Derivatives executed through a central clearing house reduces settlement risk due to the ability to net settle offsetting positions for capital purposes and therefore receive preferential capital treatment compared to those settled with non-central clearing house counterparties.

Derivatives – Notional (Continued)

(\$ millions) As at	LINE #	2021 Q4					
		Trading					
		Over-the-counter ¹					
		Clearing house ²	Non- clearing house	Exchange- traded	Total	Non- trading	Total
Interest Rate Contracts							
Futures	1	\$ –	\$ –	\$ 896,396	\$ 896,396	\$ –	\$ 896,396
Forward rate agreements	2	501,519	16,976	–	518,495	831	519,326
Swaps	3	10,575,475	358,754	–	10,934,229	1,586,445	12,520,674
Options written	4	–	71,408	37,057	108,465	493	108,958
Options purchased	5	–	74,010	41,807	115,817	3,133	118,950
	6	11,076,994	521,148	975,260	12,573,402	1,590,902	14,164,304
Foreign Exchange Contracts							
Futures	7	–	–	–	–	–	–
Forward contracts	8	–	189,096	–	189,096	32,500	221,596
Swaps	9	–	2,366,501	–	2,366,501	589	2,367,090
Cross-currency interest rate swaps	10	–	967,297	–	967,297	72,663	1,039,960
Options written	11	–	19,156	17	19,173	–	19,173
Options purchased	12	–	16,742	16	16,758	–	16,758
	13	–	3,558,792	33	3,558,825	105,752	3,664,577
Credit Derivative Contracts							
Credit default swaps							
Protection purchased	14	8,014	87	–	8,101	3,563	11,664
Protection sold	15	2,805	158	–	2,963	–	2,963
	16	10,819	245	–	11,064	3,563	14,627
Other Contracts							
Equity contracts	17	–	90,810	99,190	190,000	25,716	215,716
Commodity contracts	18	265	52,231	50,847	103,343	–	103,343
	19	265	143,041	150,037	293,343	25,716	319,059
Total	20	\$ 11,088,078	\$ 4,223,226	\$ 1,125,330	\$ 16,436,634	\$ 1,725,933	\$ 18,162,567

¹ Collateral held under a CSA to help reduce CCR is in the form of high-quality and liquid assets such as cash and high-quality government securities. Acceptable collateral is governed by the Collateralized Trading Policy.

² Derivatives executed through a central clearing house reduces settlement risk due to the ability to net settle offsetting positions for capital purposes and therefore receive preferential capital treatment compared to those settled with non-central clearing house counterparties.

Derivatives – Credit Exposure

(\$ millions) As at		LINE #	2022 Q4			2022 Q3			2022 Q2		
			Current replacement cost ¹	Credit equivalent amount	Risk- weighted amount	Current replacement cost ¹	Credit equivalent amount	Risk- weighted amount	Current replacement cost ¹	Credit equivalent amount	Risk- weighted amount
Interest Rate Contracts											
Forward rate agreements	1		\$ 21	\$ 90	\$ 30	\$ 39	\$ 101	\$ 28	\$ 45	\$ 303	\$ 184
Swaps	2		7,328	14,424	920	3,823	9,702	1,045	3,629	9,390	861
Options written	3		4	84	18	4	69	14	4	79	17
Options purchased	4		20	101	40	10	81	30	18	93	37
	5		7,373	14,699	1,008	3,876	9,953	1,117	3,696	9,865	1,099
Foreign Exchange Contracts											
Forward contracts	6		1,467	4,446	695	1,005	3,640	511	1,701	4,655	607
Swaps	7		5,583	19,930	2,265	3,762	19,789	2,300	6,342	21,795	2,315
Cross-currency interest rate swaps	8		6,372	18,019	1,599	3,986	14,126	1,518	3,422	13,485	1,315
Options written	9		35	349	183	8	223	75	12	218	72
Options purchased	10		102	271	135	40	145	81	38	175	88
	11		13,559	43,015	4,877	8,801	37,923	4,485	11,515	40,328	4,397
Other Contracts											
Credit derivatives	12		1	449	83	1	344	68	2	401	81
Equity contracts	13		513	7,456	1,662	624	7,604	1,597	1,003	8,519	1,308
Commodity contracts	14		1,104	5,101	1,055	1,935	6,241	1,427	2,125	6,689	1,463
	15		1,618	13,006	2,800	2,560	14,189	3,092	3,130	15,609	2,852
Total net derivatives	16		22,550	70,720	8,685	15,237	62,065	8,694	18,341	65,802	8,348
Qualifying Central Counterparty (QCCP) contracts ²	17		7,468	28,230	941	6,829	21,264	740	6,617	25,639	851
Total	18		\$ 30,018	\$ 98,950	\$ 9,626	\$ 22,066	\$ 83,329	\$ 9,434	\$ 24,958	\$ 91,441	\$ 9,199

			2022 Q1			2021 Q4							
			Current replacement cost ¹	Credit equivalent amount	Risk- weighted amount	Current replacement cost ¹	Credit equivalent amount	Risk- weighted amount					
Interest Rate Contracts													
Forward rate agreements	19	\$	31	\$	232	\$	15	\$	275	\$	164		
Swaps	20		2,275		8,016		2,117		7,817		1,710		
Options written	21		4		83		4		71		18		
Options purchased	22		21		103		33		114		31		
	23		2,331		8,434		2,169		8,277		1,923		
Foreign Exchange Contracts													
Forward contracts	24		620		3,193		558		2,799		465		
Swaps	25		2,278		17,795		2,799		18,649		1,975		
Cross-currency interest rate swaps	26		2,347		12,496		1,490		10,075		1,170		
Options written	27		8		153		7		145		52		
Options purchased	28		26		123		22		132		64		
	29		5,279		33,760		4,876		31,800		3,726		
Other Contracts													
Credit derivatives	30		3		491		3		426		88		
Equity contracts	31		326		7,462		252		7,129		1,390		
Commodity contracts	32		1,539		5,739		1,524		5,176		1,340		
	33		1,868		13,692		1,779		12,731		2,818		
Total net derivatives	34		9,478		55,886		8,824		52,808		8,467		
Qualifying Central Counterparty (QCCP) contracts ²	35		5,787		22,654		5,937		20,945		611		
Total	36	\$	15,265	\$	78,540	\$	9,025	\$	14,761	\$	73,753	\$	9,078

¹ Non-trading credit derivatives, which are given financial guarantee treatment for credit risk capital purposes, were excluded in accordance with OSFI's guidelines.

² RWA for OSFI "deemed" QCCP derivative exposures are calculated in accordance with the Basel III regulatory framework, which takes into account both trade exposures and default fund exposures relating to derivatives, are presented based on the "all-in" methodology. The amounts calculated are net of master netting agreements and collateral.

Securitization Exposures in the Banking Book (SEC1)¹

(\$ millions) As at		LINE #	2022 Q4			2022 Q3			2022 Q2			2022 Q1		
			Bank acts as originator/sponsor Traditional	Bank acts as investor Traditional	Total	Bank acts as originator/sponsor Traditional	Bank acts as investor Traditional	Total	Bank acts as originator/sponsor Traditional	Bank acts as investor Traditional	Total	Bank acts as originator/sponsor Traditional	Bank acts as investor Traditional	Total
Retail (total) – of which:		1	\$ 32,972	\$ 40,310	\$ 73,282	\$ 27,664	\$ 39,905	\$ 67,569	\$ 24,959	\$ 37,730	\$ 62,689	\$ 24,947	\$ 34,913	\$ 59,860
Residential mortgage		2	11,589	292	11,881	11,108	348	11,456	9,527	319	9,846	8,886	225	9,111
Credit card		3	4,639	13,035	17,674	1,361	12,602	13,963	1,363	11,208	12,571	1,305	9,443	10,748
Other retail exposures		4	16,744	26,983	43,727	15,195	26,955	42,150	14,069	26,203	40,272	14,756	25,245	40,001
Re-securitization		5	–	–	–	–	–	–	–	–	–	–	–	–
Wholesale (total) – of which:		6	16,746	37,605	54,351	11,973	34,636	46,609	10,951	32,447	43,398	9,940	29,636	39,576
Loans to corporates		7	–	14,875	14,875	–	12,590	12,590	–	10,253	10,253	–	8,045	8,045
Commercial mortgage		8	–	17,233	17,233	–	16,623	16,623	–	16,990	16,990	–	16,921	16,921
Lease and receivables		9	16,473	5,497	21,970	11,717	5,423	17,140	10,694	5,204	15,898	9,685	4,670	14,355
Other wholesale		10	273	–	273	256	–	256	257	–	257	255	–	255
Re-securitization		11	–	–	–	–	–	–	–	–	–	–	–	–
2021 Q4														
			Bank acts as originator/sponsor Traditional	Bank acts as investor Traditional	Total									
Retail (total) – of which:		12	\$ 24,426	\$ 31,698	\$ 56,124									
Residential mortgage		13	8,685	118	8,803									
Credit card		14	1,273	7,913	9,186									
Other retail exposures		15	14,468	23,667	38,135									
Re-securitization		16	–	–	–									
Wholesale (total) – of which:		17	9,221	28,659	37,880									
Loans to corporates		18	–	7,579	7,579									
Commercial mortgage		19	–	16,137	16,137									
Lease and receivables		20	9,159	4,943	14,102									
Other wholesale		21	62	–	62									
Re-securitization		22	–	–	–									

¹ The Bank does not have any synthetic securitization exposures.

Securitization Exposures in the Trading Book (SEC2)¹

(\$ millions) As at	LINE #	2022 Q4	2022 Q3	2022 Q2	2022 Q1
		<div> <div>Bank acts as originator/sponsor</div> <div>Bank acts as investor</div> <div>Total</div> </div>	<div> <div>Bank acts as originator/sponsor</div> <div>Bank acts as investor</div> <div>Total</div> </div>	<div> <div>Bank acts as originator/sponsor</div> <div>Bank acts as investor</div> <div>Total</div> </div>	<div> <div>Bank acts as originator/sponsor</div> <div>Bank acts as investor</div> <div>Total</div> </div>
		<div>Traditional</div> <div>Traditional</div> <div>Total</div>	<div>Traditional</div> <div>Traditional</div> <div>Total</div>	<div>Traditional</div> <div>Traditional</div> <div>Total</div>	<div>Traditional</div> <div>Traditional</div> <div>Total</div>
Retail (total) – of which:	1	\$ – \$ 600 \$ 600	\$ – \$ 522 \$ 522	\$ – \$ 617 \$ 617	\$ – \$ 494 \$ 494
Residential mortgage	2	– – –	– – –	– – –	– – –
Credit card	3	– 8 8	– 87 87	– 98 98	– 68 68
Other retail exposures	4	– 592 592	– 435 435	– 519 519	– 426 426
Re-securitization	5	– – –	– – –	– – –	– – –
Wholesale (total) – of which:	6	– 55 55	– 17 17	– 26 26	– 8 8
Loans to corporates	7	– – –	– – –	– – –	– – –
Commercial mortgage	8	– 1 1	– 1 1	– 1 1	– 1 1
Lease and receivables	9	– – –	– – –	– – –	– – –
Other wholesale	10	– 54 54	– 16 16	– 25 25	– 7 7
Re-securitization	11	– – –	– – –	– – –	– – –
		2021 Q4			
		<div> <div>Bank acts as originator/sponsor</div> <div>Bank acts as investor</div> <div>Total</div> </div>			
		<div>Traditional</div> <div>Traditional</div> <div>Total</div>			
Retail (total) – of which:	12	\$ – \$ 556 \$ 556			
Residential mortgage	13	– – –			
Credit card	14	– 33 33			
Other retail exposures	15	– 523 523			
Re-securitization	16	– – –			
Wholesale (total) – of which:	17	– 54 54			
Loans to corporates	18	– – –			
Commercial mortgage	19	– 1 1			
Lease and receivables	20	– – –			
Other wholesale	21	– 53 53			
Re-securitization	22	– – –			

¹ The Bank does not have any synthetic securitization exposures.

Securitization Exposures in the Banking Book and Associated Regulatory Capital Requirements – Bank Acting as Originator or as Sponsor (SEC3)¹

(\$ millions) As at		2022 Q4																
LINE #																		
		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	1250%	IRBA	ERBA/ IAA	SA	1250%	IRBA	ERBA/ IAA	SA	1250%
Total exposures																		
Traditional securitization	1	\$ 46,988	\$ 2,296	\$ 280	\$ 154	\$ –	\$ 3,200	\$ 45,698	\$ 818	\$ 2	\$ 361	\$ 5,709	\$ 126	\$ 29	\$ 29	\$ 444	\$ 10	\$ 2
of which: securitization	2	46,988	2,296	280	154	–	3,200	45,698	818	2	361	5,709	126	29	29	444	10	2
of which: retail underlying	3	31,456	1,343	63	110	–	3,200	29,225	545	2	361	3,623	55	29	29	277	4	2
of which: wholesale	4	15,532	953	217	44	–	–	16,473	273	–	–	2,086	71	–	–	167	6	–
of which: re-securitization	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: senior	6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: non-senior	7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	8	\$ 46,988	\$ 2,296	\$ 280	\$ 154	\$ –	\$ 3,200	\$ 45,698	\$ 818	\$ 2	\$ 361	\$ 5,709	\$ 126	\$ 29	\$ 29	\$ 444	\$ 10	\$ 2
		2022 Q3																
		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	1250%	IRBA	ERBA/ IAA	SA	1250%	IRBA	ERBA/ IAA	SA	1250%
Total exposures																		
Traditional securitization	9	\$ 37,727	\$ 1,601	\$ 274	\$ 34	\$ 1	\$ –	\$ 38,867	\$ 769	\$ 1	\$ –	\$ 4,684	\$ 119	\$ 15	\$ –	\$ 357	\$ 10	\$ 1
of which: securitization	10	37,727	1,601	274	34	1	–	38,867	769	1	–	4,684	119	15	–	357	10	1
of which: retail underlying	11	26,876	705	82	–	1	–	27,150	513	1	–	3,116	51	15	–	232	5	1
of which: wholesale	12	10,851	896	192	34	–	–	11,717	256	–	–	1,568	68	–	–	125	5	–
of which: re-securitization	13	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: senior	14	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: non-senior	15	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	16	\$ 37,727	\$ 1,601	\$ 274	\$ 34	\$ 1	\$ –	\$ 38,867	\$ 769	\$ 1	\$ –	\$ 4,684	\$ 119	\$ 15	\$ –	\$ 357	\$ 10	\$ 1
		2022 Q2																
		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	1250%	IRBA	ERBA/ IAA	SA	1250%	IRBA	ERBA/ IAA	SA	1250%
Total exposures																		
Traditional securitization	17	\$ 34,212	\$ 1,463	\$ 199	\$ 35	\$ 1	\$ –	\$ 35,139	\$ 770	\$ 1	\$ –	\$ 4,311	\$ 119	\$ 19	\$ –	\$ 328	\$ 10	\$ 1
of which: securitization	18	34,212	1,463	199	35	1	–	35,139	770	1	–	4,311	119	19	–	328	10	1
of which: retail underlying	19	24,377	581	–	–	1	–	24,445	513	1	–	2,849	51	19	–	211	5	1
of which: wholesale	20	9,835	882	199	35	–	–	10,694	257	–	–	1,462	68	–	–	117	5	–
of which: re-securitization	21	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: senior	22	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: non-senior	23	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	24	\$ 34,212	\$ 1,463	\$ 199	\$ 35	\$ 1	\$ –	\$ 35,139	\$ 770	\$ 1	\$ –	\$ 4,311	\$ 119	\$ 19	\$ –	\$ 328	\$ 10	\$ 1
		2022 Q1																
		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	1250%	IRBA	ERBA/ IAA	SA	1250%	IRBA	ERBA/ IAA	SA	1250%
Total exposures																		
Traditional securitization	25	\$ 33,864	\$ 793	\$ 194	\$ 34	\$ 2	\$ –	\$ 34,059	\$ 826	\$ 2	\$ –	\$ 4,010	\$ 153	\$ 22	\$ –	\$ 304	\$ 12	\$ 2
of which: securitization	26	33,864	793	194	34	2	–	34,059	826	2	–	4,010	153	22	–	304	12	2
of which: retail underlying	27	24,454	491	–	–	2	–	24,373	572	2	–	2,752	86	22	–	203	7	2
of which: wholesale	28	9,410	302	194	34	–	–	9,686	254	–	–	1,258	67	–	–	101	5	–
of which: re-securitization	29	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: senior	30	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: non-senior	31	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	32	\$ 33,864	\$ 793	\$ 194	\$ 34	\$ 2	\$ –	\$ 34,059	\$ 826	\$ 2	\$ –	\$ 4,010	\$ 153	\$ 22	\$ –	\$ 304	\$ 12	\$ 2

¹ The Bank does not have any synthetic securitization exposures.

² RWA before application of cap.

Securitization Exposures in the Banking Book and Associated Regulatory Capital Requirements – Bank Acting as Originator or as Sponsor (SEC3) (Continued)¹

(\$ millions) As at		LINE #	2021 Q4																
			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	1250%	IRBA	ERBA/ IAA	SA	1250%	IRBA	ERBA/ IAA	SA	1250%
Total exposures																			
Traditional securitization	1	\$	32,856	\$ 559	\$ 157	\$ 73	\$ 2	\$ –	\$ 33,583	\$ 62	\$ 2	\$ –	\$ 3,930	\$ 16	\$ 27	\$ –	\$ 297	\$ 1	\$ 2
of which: securitization	2		32,856	559	157	73	2	–	33,583	62	2	–	3,930	16	27	–	297	1	2
of which: retail underlying	3		23,939	456	29	–	2	–	24,424	–	2	–	2,741	–	27	–	202	–	2
of which: wholesale	4		8,917	103	128	73	–	–	9,159	62	–	–	1,189	16	–	–	95	1	–
of which: re-securitization	5		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: senior	6		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: non-senior	7		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	8	\$	32,856	\$ 559	\$ 157	\$ 73	\$ 2	\$ –	\$ 33,583	\$ 62	\$ 2	\$ –	\$ 3,930	\$ 16	\$ 27	\$ –	\$ 297	\$ 1	\$ 2

¹ The Bank does not have any synthetic securitization exposures.

² RWA before application of cap.

Securitization Exposures in the Banking Book and Associated Regulatory Capital Requirements – Bank Acting as Investor (SEC4)¹

(\$ millions) As at		LINE #	2022 Q4																
			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	1250%	IRBA	ERBA/ IAA	SA	1250%	IRBA	ERBA/ IAA	SA	1250%
Total exposures																			
Traditional securitization		1	\$ 77,270	\$ 645	\$ –	\$ –	\$ –	\$ 8,958	\$ 68,821	\$ 136	\$ –	\$ 896	\$ 10,522	\$ 14	\$ –	\$ 52	\$ 838	\$ 1	\$ –
of which: securitization		2	77,270	645	–	–	–	8,958	68,821	136	–	896	10,522	14	–	52	838	1	–
of which: retail underlying		3	39,665	645	–	–	–	8,958	31,352	–	–	896	3,294	–	–	52	260	–	–
of which: wholesale		4	37,605	–	–	–	–	–	37,469	136	–	–	7,228	14	–	–	578	1	–
of which: re-securitization		5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: senior		6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: non-senior		7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total		8	\$ 77,270	\$ 645	\$ –	\$ –	\$ –	\$ 8,958	\$ 68,821	\$ 136	\$ –	\$ 896	\$ 10,522	\$ 14	\$ –	\$ 52	\$ 838	\$ 1	\$ –
			2022 Q3																
			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	1250%	IRBA	ERBA/ IAA	SA	1250%	IRBA	ERBA/ IAA	SA	1250%
Total exposures																			
Traditional securitization		9	\$ 74,007	\$ 534	\$ –	\$ –	\$ –	\$ 9,060	\$ 65,353	\$ 128	\$ –	\$ 906	\$ 9,872	\$ 13	\$ –	\$ 53	\$ 785	\$ 1	\$ –
of which: securitization		10	74,007	534	–	–	–	9,060	65,353	128	–	906	9,872	13	–	53	785	1	–
of which: retail underlying		11	39,371	534	–	–	–	9,060	30,845	–	–	906	3,236	–	–	53	254	–	–
of which: wholesale		12	34,636	–	–	–	–	–	34,508	128	–	–	6,636	13	–	–	531	1	–
of which: re-securitization		13	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: senior		14	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: non-senior		15	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total		16	\$ 74,007	\$ 534	\$ –	\$ –	\$ –	\$ 9,060	\$ 65,353	\$ 128	\$ –	\$ 906	\$ 9,872	\$ 13	\$ –	\$ 53	\$ 785	\$ 1	\$ –
			2022 Q2																
			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	1250%	IRBA	ERBA/ IAA	SA	1250%	IRBA	ERBA/ IAA	SA	1250%
Total exposures																			
Traditional securitization		17	\$ 69,656	\$ 521	\$ –	\$ –	\$ –	\$ 9,527	\$ 60,522	\$ 128	\$ –	\$ 953	\$ 9,169	\$ 13	\$ –	\$ 57	\$ 729	\$ –	\$ –
of which: securitization		18	69,656	521	–	–	–	9,527	60,522	128	–	953	9,169	13	–	57	729	–	–
of which: retail underlying		19	37,209	521	–	–	–	9,527	28,203	–	–	953	2,971	–	–	57	233	–	–
of which: wholesale		20	32,447	–	–	–	–	–	32,319	128	–	–	6,198	13	–	–	496	–	–
of which: re-securitization		21	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: senior		22	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: non-senior		23	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total		24	\$ 69,656	\$ 521	\$ –	\$ –	\$ –	\$ 9,527	\$ 60,522	\$ 128	\$ –	\$ 953	\$ 9,169	\$ 13	\$ –	\$ 57	\$ 729	\$ –	\$ –
			2022 Q1																
			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	1250%	IRBA	ERBA/ IAA	SA	1250%	IRBA	ERBA/ IAA	SA	1250%
Total exposures																			
Traditional securitization		25	\$ 64,063	\$ 486	\$ –	\$ –	\$ –	\$ 9,895	\$ 54,527	\$ 127	\$ –	\$ 990	\$ 8,307	\$ 13	\$ –	\$ 58	\$ 664	\$ 1	\$ –
of which: securitization		26	64,063	486	–	–	–	9,895	54,527	127	–	990	8,307	13	–	58	664	1	–
of which: retail underlying		27	34,427	486	–	–	–	9,895	25,018	–	–	990	2,637	–	–	58	210	–	–
of which: wholesale		28	29,636	–	–	–	–	–	29,509	127	–	–	5,670	13	–	–	454	1	–
of which: re-securitization		29	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: senior		30	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: non-senior		31	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total		32	\$ 64,063	\$ 486	\$ –	\$ –	\$ –	\$ 9,895	\$ 54,527	\$ 127	\$ –	\$ 990	\$ 8,307	\$ 13	\$ –	\$ 58	\$ 664	\$ 1	\$ –

¹ The Bank does not have any synthetic securitization exposures.

² RWA before application of cap.

Securitization Exposures in the Banking Book and Associated Regulatory Capital Requirements – Bank Acting as Investor (SEC4) (Continued)¹

(\$ millions) As at		LINE #	2021 Q4																
			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	1250%	IRBA	ERBA/ IAA	SA	1250%	IRBA	ERBA/ IAA	SA	1250%
Total exposures																			
Traditional securitization	1	\$	59,901	\$ 456	\$ –	\$ –	\$ –	\$ 10,064	\$ 50,169	\$ 124	\$ –	\$ 1,006	\$ 7,742	\$ 12	\$ –	\$ 58	\$ 619	\$ 1	\$ –
of which: securitization	2		59,901	456	–	–	–	10,064	50,169	124	–	1,006	7,742	12	–	58	619	1	–
of which: retail underlying	3		31,242	456	–	–	–	10,064	21,634	–	–	1,006	2,282	–	–	58	182	–	–
of which: wholesale	4		28,659	–	–	–	–	–	28,535	124	–	–	5,460	12	–	–	437	1	–
of which: re-securitization	5		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: senior	6		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: non-senior	7		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	8	\$	59,901	\$ 456	\$ –	\$ –	\$ –	\$ 10,064	\$ 50,169	\$ 124	\$ –	\$ 1,006	\$ 7,742	\$ 12	\$ –	\$ 58	\$ 619	\$ 1	\$ –

¹ The Bank does not have any synthetic securitization exposures.

² RWA before application of cap.

AIRB Credit Risk Exposures: Actual and Estimated Parameters

(Percentage) As at		LINE #	2022 Q4						2022 Q3					
			Average Estimated PD ^{1,2}	Actual Default Rate ²	Average Estimated LGD ³	Actual LGD ⁴	Average Estimated EAD	Actual EAD ⁵	Average Estimated PD ^{1,2}	Actual Default Rate ²	Average Estimated LGD ³	Actual LGD ⁴	Average Estimated EAD	Actual EAD ⁵
Retail⁶														
Residential secured uninsured		1	0.30 %	0.39 %	28.70 %	5.04 %	95.17 %	92.72 %	0.30 %	0.32 %	29.34 %	6.12 %	95.03 %	92.33 %
Residential secured insured ⁷		2	0.25	0.17	n/a	n/a	97.37	94.68	0.27	0.17	n/a	n/a	97.61	95.13
Qualifying revolving retail		3	1.47	1.20	90.91	84.08	94.62	85.90	1.37	1.25	89.75	85.51	92.78	85.69
Other retail		4	1.76	1.21	56.19	42.76	98.97	95.77	1.88	1.16	53.11	42.79	98.95	95.63
Non-Retail														
Corporate		5	1.75	0.27	21.84	20.74	90.46	85.19	1.77	0.26	22.04	16.56	90.64	87.75
Sovereign		6	0.26	—	7.44	n/a	99.83	n/a	0.21	—	7.76	n/a	99.80	n/a
Bank		7	0.19	—	18.56	n/a	96.59	n/a	0.19	—	18.40	n/a	96.88	n/a
			2022 Q2						2022 Q1					
			Average Estimated PD ^{1,2}	Actual Default Rate ²	Average Estimated LGD ³	Actual LGD ⁴	Average Estimated EAD	Actual EAD ⁵	Average Estimated PD ^{1,2}	Actual Default Rate ²	Average Estimated LGD ³	Actual LGD ⁴	Average Estimated EAD	Actual EAD ⁵
Retail⁶														
Residential secured uninsured		8	0.33 %	0.29 %	29.74 %	6.13 %	95.57 %	92.74 %	0.38 %	0.50 %	29.60 %	7.11 %	96.17 %	94.18 %
Residential secured insured ⁷		9	0.30	0.17	n/a	n/a	97.78	95.60	0.31	0.18	n/a	n/a	98.52	96.88
Qualifying revolving retail		10	1.51	1.26	89.44	83.34	94.33	85.91	1.62	1.38	89.40	83.81	94.22	86.48
Other retail		11	2.18	1.18	52.02	42.49	99.18	96.13	2.46	1.32	50.81	43.39	99.19	96.24
Non-Retail														
Corporate		12	1.77	0.30	21.30	16.73	90.72	60.89	1.72	0.33	20.83	21.20	90.80	54.83
Sovereign		13	0.21	—	7.97	n/a	99.82	n/a	0.26	—	7.99	n/a	99.83	n/a
Bank		14	0.19	—	17.47	n/a	97.05	n/a	0.18	—	18.61	n/a	96.91	n/a
			2021 Q4											
			Average Estimated PD ^{1,2}	Actual Default Rate ²	Average Estimated LGD ³	Actual LGD ⁴	Average Estimated EAD	Actual EAD ⁵						
Retail⁶														
Residential secured uninsured		15	0.29 %	0.26 %	26.41 %	7.97 %	95.96 %	96.25 %						
Residential secured insured ⁷		16	0.29	0.21	n/a	n/a	98.36	97.04						
Qualifying revolving retail		17	1.37	1.33	89.81	84.44	91.78	88.59						
Other retail		18	1.85	1.67	49.78	44.66	98.82	91.80						
Non-Retail														
Corporate		19	1.69	0.40	20.60	26.72	84.40	52.38						
Sovereign		20	0.17	—	8.93	n/a	99.86	n/a						
Bank		21	0.18	—	18.93	n/a	88.54	n/a						

¹ Estimated PD reflects a one-year through-the-cycle time horizon and is based on long run economic conditions.

² Average Estimated PD and Actual Default Rate are weighted by account.

³ Estimated LGD reflects loss estimates for the full portfolio under a severe downturn economic scenario.

⁴ Represents average LGD of the impaired portfolio over trailing 12 months.

⁵ Represents actual defaults over trailing 12 months.

⁶ Effective the first quarter of fiscal 2022, retail and non-retail results are generated to align with revised OSFI back-testing reporting.

⁷ LGD for the residential secured insured portfolio is n/a due to the effect of CRM from government backed entities.

IRB – Backtesting of Probability of Default (PD) per Portfolio – Non-Retail (CR9)

(\$ millions, except as noted)
As at

Corporate	LINE #	2022 Q4								
		PD range	External rating equivalent ¹	Weighted average PD	Arithmetic PD average by Obligor	Number of obligors ²		Defaulted obligors in the year ³	of which: new defaulted obligors in the year	Average historical annual default rate
						End of previous	End of the year			
Canada ⁴	1	0.00 to <0.15 %	AAA to BBB-	0.08 %	0.11 %	5,491	6,780	3	1	0.01 %
	2	0.15 to <0.25	BB+	0.20	0.20	1,998	2,419	1	–	0.04
	3	0.25 to <0.50	BB to BB-	0.36	0.35	6,924	7,517	5	1	0.05
	4	0.50 to <0.75	B+	0.68	0.68	2,444	2,214	–	–	0.10
	5	0.75 to <2.50	B To B-	1.61	1.71	12,272	11,126	29	3	0.40
	6	2.50 to <10.00	CCC+	9.01	9.01	384	307	11	–	2.39
	7	10.00 to <100.00	CCC to CC and below	21.95	23.76	680	672	59	1	7.36
	8	Total		0.87	1.54	29,484	30,239	108	6	0.34
U.S.	9	0.00 to <0.15 %	AAA to A-	0.05	0.07	470	486	–	–	–
	10	0.15 to <0.25	n/a	n/a	n/a	n/a	166	–	–	–
	11	0.25 to <0.50	BBB+	0.29	0.29	163	222	–	–	–
	12	0.50 to <0.75	BBB to BBB-	0.71	0.73	1,303	4,572	1	–	0.02
	13	0.75 to <2.50	BB+ to B	1.27	1.40	10,835	6,841	1	–	0.12
	14	2.50 to <10.00	B-	4.70	4.70	1,978	1,483	3	–	0.25
	15	10.00 to <100.00	CCC+ to CC and below	29.92	31.73	816	590	36	–	8.61
	16	Total		2.46	3.31	15,558	14,355	41	–	0.43
Sovereign	17	0.00 to <0.15 %	AAA to BBB-	0.01	0.01	1,074	1,052	–	–	–
	18	0.15 to <0.25	BB+	0.20	0.20	1	1	–	–	–
	19	0.25 to <0.50	BB to BB-	–	–	–	–	–	–	–
	20	0.50 to <0.75	B+	–	–	–	–	–	–	–
	21	0.75 to <2.50	B To B-	2.14	2.14	3	1	–	–	–
	22	2.50 to <10.00	CCC+	4.70	4.70	1	1	–	–	–
	23	10.00 to <100.00	CCC to CC and below	–	–	–	–	–	–	–
	24	Total		0.01	0.02	1,079	1,055	–	–	–
Bank	25	0.00 to <0.15 %	AAA to BBB-	0.04	0.06	1,074	1,015	–	–	–
	26	0.15 to <0.25	BB+	0.20	0.20	9	42	–	–	–
	27	0.25 to <0.50	BB to BB-	0.31	0.31	55	21	–	–	–
	28	0.50 to <0.75	B+	0.72	0.71	38	34	–	–	–
	29	0.75 to <2.50	B To B-	1.38	1.72	38	19	–	–	–
	30	2.50 to <10.00	CCC+	4.70	4.70	3	3	–	–	–
	31	10.00 to <100.00	CCC to CC and below	40.63	44.23	2	2	–	–	–
	32	Total		0.18 %	0.31 %	1,205	1,131	–	–	– %

¹ Represents external rating equivalent at the end of the previous year.

² Total number of obligors is total number of unique borrowers and may not add as certain borrowers may be represented in more than one PD scale.

³ The Bank defines default as delinquency of 90 days or more for most retail products and borrower risk rating (BRR) 9 for non-retail exposures.

⁴ Includes Canadian Personal and Commercial Banking, Wealth Management and Insurance, Wholesale Banking and Corporate segments.

IRB – Backtesting of Probability of Default (PD) per Portfolio – Retail (CR9)

LINE #		2022 Q4							
		PD range	Weighted average PD	Arithmetic PD average by Obligor	Number of obligors		Defaulted obligors in the year ¹	of which: new defaulted obligors in the year	Average historical annual default rate
					End of previous	End of the year			
Residential Secured Canada Insured ²	1	0.00 to <0.15 %	0.07 %	0.04 %	340,911	320,767	121	–	0.04 %
	2	0.15 to <0.25	0.20	0.20	45,525	36,983	88	–	0.18
	3	0.25 to <0.50	0.31	0.36	41,305	33,232	106	1	0.29
	4	0.50 to <0.75	0.51	0.60	17,830	15,400	68	–	0.43
	5	0.75 to <2.50	1.20	1.30	19,250	15,503	151	–	0.89
	6	2.50 to <10.00	5.42	4.77	6,417	5,326	207	–	3.25
	7	10.00 to <100.00	26.41	26.08	1,180	983	153	–	11.78
	8	Total	0.56	0.55	472,418	428,194	894	1	0.24
Canada Uninsured ²	9	0.00 to <0.15 %	0.06	0.05	799,548	848,459	214	2	0.03
	10	0.15 to <0.25	0.19	0.20	123,806	124,985	145	13	0.11
	11	0.25 to <0.50	0.31	0.34	79,919	93,329	180	14	0.23
	12	0.50 to <0.75	0.51	0.59	31,184	24,271	107	7	0.41
	13	0.75 to <2.50	1.22	1.27	29,033	29,879	255	3	0.91
	14	2.50 to <10.00	5.65	4.65	7,292	7,247	240	–	3.44
	15	10.00 to <100.00	32.19	27.14	1,195	1,038	130	–	11.08
	16	Total	0.31	0.32	1,071,977	1,129,208	1,271	39	0.16
U.S. Uninsured	17	0.00 to <0.15 %	0.06	0.07	113,964	113,376	96	2	0.06
	18	0.15 to <0.25	0.19	0.20	21,316	26,481	71	2	0.14
	19	0.25 to <0.50	0.32	0.35	22,836	23,765	123	4	0.27
	20	0.50 to <0.75	0.56	0.61	8,685	9,066	55	1	0.46
	21	0.75 to <2.50	1.32	1.33	15,445	14,600	174	3	0.70
	22	2.50 to <10.00	6.01	4.63	5,593	4,830	142	2	2.60
	23	10.00 to <100.00	25.81	22.06	2,383	1,708	295	5	7.81
	24	Total	1.60 %	2.27 %	190,222	193,826	956	19	0.38 %
Qualifying Revolving Retail (QRR)	25	0.00 to <0.15 %	0.05 %	0.05 %	16,670,051	18,081,993	7,609	37	0.05 %
	26	0.15 to <0.25	0.19	0.19	2,382,891	2,224,461	4,281	22	0.18
	27	0.25 to <0.50	0.32	0.36	2,759,581	2,663,800	7,505	234	0.30
	28	0.50 to <0.75	0.53	0.61	1,552,509	1,546,954	6,466	98	0.48
	29	0.75 to <2.50	1.48	1.48	4,360,792	4,520,188	38,964	2,950	1.02
	30	2.50 to <10.00	5.42	4.92	3,234,784	3,088,035	90,157	74	3.36
	31	10.00 to <100.00	24.56	33.47	1,002,659	1,166,199	155,129	4,069	20.19
	32	Total	0.99	1.99	31,963,267	33,291,630	310,111	7,484	1.54
Other Retail	33	0.00 to <0.15 %	0.08	0.08	708,091	683,102	350	2	0.06
	34	0.15 to <0.25	0.20	0.20	395,357	368,777	373	5	0.14
	35	0.25 to <0.50	0.35	0.36	550,581	508,875	787	56	0.22
	36	0.50 to <0.75	0.53	0.61	292,129	263,751	727	17	0.40
	37	0.75 to <2.50	1.47	1.42	998,756	817,767	6,107	488	0.88
	38	2.50 to <10.00	5.32	4.66	476,570	410,953	11,702	940	3.14
	39	10.00 to <100.00	26.07	23.26	117,139	102,933	16,262	623	16.46
	40	Total	2.12 %	2.43 %	3,538,623	3,156,158	36,308	2,131	1.49 %

¹ The Bank defines default as delinquency of 90 days or more for most retail products and BRR 9 for non-retail exposures.

² Includes Canadian Personal and Commercial Banking, Wealth Management and Insurance, Wholesale Banking and Corporate segments.

Glossary – Basel

Risk-weighted assets (RWA)	<ul style="list-style-type: none"> Used in the calculation of risk-based capital ratios, total risk-weighted assets are calculated for credit, operational, and market risks using the approaches described below.
Approaches used by the Bank to calculate RWA	
For Credit Risk	
Standardized Approach (SA)	<ul style="list-style-type: none"> Under this approach, banks apply a standardized set of risk-weights to exposures, as prescribed by the regulator, to calculate credit risk capital requirements. Standardized risk-weights are based on external credit assessments, where available, and other risk-related factors, including exposure asset class and collateral.
Advanced Internal Ratings-Based (AIRB) Approach	<ul style="list-style-type: none"> Under this approach, banks use their own internal historical experience of PD, LGD, EAD, and other key risk assumptions to calculate credit risk capital requirements. Use of the AIRB approach is subject to supervisory approval.
For Operational Risk	
The Standardized Approach (TSA)	<ul style="list-style-type: none"> Under this approach, banks apply prescribed factors to a three-year average of annual gross income for each of eight different business lines representing the different activities of the institution (such as, Corporate Finance, Retail Banking, Asset Management).
For Market Risk	
Standardized Approach	<ul style="list-style-type: none"> Under this approach, banks use standardized capital charges prescribed by the regulator to calculate general and specific risk components of market risk.
Internal Models Approach (IMA)	<ul style="list-style-type: none"> Under this approach, banks use their own internal risk management models to calculate specific risk and general market risk charges.
Credit Risk Terminology	
Gross credit risk exposure	<ul style="list-style-type: none"> The total amount the Bank is exposed to at the time of default measured before counterparty-specific provisions or write-offs. Includes exposures under both the Standardized and AIRB approaches to credit risk.
Counterparty Type / Exposure Classes:	
Retail	
Residential Secured	<ul style="list-style-type: none"> Includes residential mortgages and home equity lines of credit extended to individuals.
Qualifying Revolving Retail (QRR)	<ul style="list-style-type: none"> Includes credit cards, unsecured lines of credit, and overdraft protection products extended to individuals (in the case of the Standardized Approach to credit risk, credit card exposures are included in the "Other Retail" category).
Other Retail	<ul style="list-style-type: none"> Includes all other loans (such as personal loans, student lines of credit, and small business loans) extended to individuals and small businesses.
Non-retail	
Corporate	<ul style="list-style-type: none"> Includes exposures to corporations, partnerships, or proprietorships.
Sovereign	<ul style="list-style-type: none"> Includes exposures to central governments, central banks, multilateral development banks, and certain public sector entities.
Bank	<ul style="list-style-type: none"> Includes exposures to deposit-taking institutions, securities firms, and certain public sector entities.
Exposure Types:	
Drawn	<ul style="list-style-type: none"> The amount of funds advanced to a borrower.
Undrawn (commitment)	<ul style="list-style-type: none"> The difference between the authorized and drawn amounts (for instance, the unused portion of a line of credit/committed credit facility).
Repo-style transactions	<ul style="list-style-type: none"> Repurchase and reverse repurchase agreements, securities borrowing and lending.
OTC derivatives	<ul style="list-style-type: none"> Privately negotiated derivative contracts.
Other off-balance sheet	<ul style="list-style-type: none"> All off-balance sheet arrangements other than derivatives and undrawn commitments (such as letters of credit, letters of guarantee).
AIRB Credit Risk Parameters:	
Probability of Default (PD)	<ul style="list-style-type: none"> The likelihood that the borrower will not be able to meet its scheduled repayments within a one year time horizon.
Exposure at Default (EAD)	<ul style="list-style-type: none"> The total amount the Bank is exposed to at the time of default.
Loss Given Default (LGD)	<ul style="list-style-type: none"> The amount of the loss when a borrower defaults on a loan, which is expressed as a percentage of EAD.
Credit Valuation Adjustment (CVA)	<ul style="list-style-type: none"> CVA represents a capital charge that measures credit risk due to default of derivative counterparties. This charge requires banks to capitalize for the potential changes in counterparty credit spread for the derivative portfolios.
Common Equity Tier 1 (CET1)	<ul style="list-style-type: none"> This is a primary Basel III capital measure comprised mainly of common equity, retained earnings and accumulated other comprehensive income (loss). Regulatory deductions made to arrive at the CET1 Capital include, goodwill and intangibles, unconsolidated investments in banking, financial, and insurance entities, deferred tax assets, defined benefit pension fund assets, and shortfalls in allowances.
CET1 Ratio	<ul style="list-style-type: none"> CET1 ratio represents the predominant measure of capital adequacy under Basel III and equals CET1 Capital divided by RWA.
Return on risk-weighted assets	<ul style="list-style-type: none"> Net income available to common shareholders as a percentage of average RWA.
Liquidity Coverage Ratio (LCR)	<ul style="list-style-type: none"> LCR is calculated by dividing the total stock of unencumbered high-quality liquid assets by the expected next 30-day stressed cash outflow.
Countercyclical Capital Buffer (CCB)	<ul style="list-style-type: none"> CCB is an extension of the capital conservation buffer which takes into account the macro-financial environment in which the banks operate and aims to protect the banking sector against future potential losses during periods of excess aggregate credit growth from a build-up of system-wide risk. The Bank's CCB will be a weighted average of the buffers deployed across jurisdictions to which the institution has private sector credit exposures.

Acronyms

Acronym	Definition	Acronym	Definition
AOCI	Accumulated Other Comprehensive Income	N/A	Not Applicable
BCBS	Basel Committee on Banking Supervision	N/M	Not Meaningful
CCF	Credit Conversion Factor	NVCC	Non-Viability Contingent Capital
CCR	Counterparty Credit Risk	OSFI	Office of the Superintendent of Financial Institutions Canada
CMHC	Canada Mortgage and Housing Corporation	OTC	Over-The-Counter
CRM	Credit Risk Mitigation	PFE	Potential Future Exposure
CSA	Credit Support Annex	QCCP	Qualifying Central Counterparty
D-SIBs	Domestic Systemically Important Banks	SA-CCR	Standardized Approach Counterparty Credit Risk
FSB	Financial Stability Board	SEC-ERBA	Securitization External Ratings-Based Approach
G-SIBs	Global Systemically Important Banks	SEC-IRBA	Securitization Internal Ratings-Based Approach
HELOCs	Home Equity Lines of Credit	SEC-SA	Securitization Standardized Approach
IAA	Internal Assessment Approach	SFTs	Securities Financing Transactions
IFRS	International Financial Reporting Standards	TLAC	Total Loss Absorbing Capacity
IMM	Internal Model Method	VaR	Value-at-Risk
IRB	Internal Ratings-Based		