



Supplemental Regulatory Disclosure

For the Second Quarter Ended April 30, 2019

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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 second quarter 2019 Report to Shareholders, Earnings News Release, Supplemental Financial Information, and Investor Presentation, as well as the Bank's 2018 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 (GAAP), and refers to results prepared in accordance with IFRS as "reported" results.

Basel III Reporting

The Office of the Superintendent of Financial Institutions Canada (OSFI) has implemented a phased-in approach to the Credit Valuation Adjustment (CVA) component included in credit risk-weighted assets (RWA). The CVA capital charge phase-in is based on a scalar approach whereby a CVA capital charge of 80%, applicable in 2018 for the Common Equity Tier 1 (CET1) calculation, has increased to 100% in 2019. A different scalar applies to the CET1, Tier 1, and Total Capital ratios. Therefore, each capital ratio has its own RWA measure. For fiscal 2018, the scalars for inclusion of CVA for CET1, Tier 1, and Total Capital RWA were 80%, 83%, and 86%, respectively. For fiscal 2019, the corresponding scalars are all 100%. Effective in the second quarter of 2018, OSFI implemented a revised methodology for calculating the regulatory capital floor. The revised floor is based on the Basel II standardized approach, with the floor factor transitioned in over three quarters. The factor increases from 70% in the second quarter of 2018, to 72.5% in the third quarter, and 75% in the fourth quarter. Under the revised methodology, the Bank is no longer constrained by the capital floor. All three RWA measures are disclosed as part of the RWA disclosures on page 10, as well as the Capital Position disclosures on pages 1 to 3.

OSFI approved the Bank i) to use the Advanced Measurement Approach (AMA), and ii) to calculate the majority of the retail portfolio credit RWA in the U.S. Retail segment using the Advanced Internal Ratings-Based (AIRB) Approach.

Effective the fourth quarter of 2018, the Bank implemented the new Pillar 3 disclosure requirements. As noted in the Pillar 3 disclosure Index on the following pages, the disclosures are grouped by topic. Of note, Part 4 – Credit Risk consists of credit risk exposures excluding counterparty credit risk (CCR) and includes drawn, undrawn and other off-balance sheet exposures whereas CCR for Part 5 – CCR includes repo-style transactions and derivative exposures. The glossary provides additional details of items included in these exposure types.

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 second quarter 2019, 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 2018 Annual Report, Management's Discussion and Analysis, or the Consolidated Financial Statements.

Topic	Pillar 3 Disclosure Requirements	Frequency	Page			
			RTS Second Quarter 2019	SFI Second Quarter 2019	SRD Second Quarter 2019	Annual Report 2018
Part 2 – Overview of risk management	OVA – Bank risk management approach.	Annual				10, 60, 67-76, 84, 101
	OV1 – Overview of RWA.	Quarterly			10	
Part 3 – 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	
Part 4 – Credit risk	CRA – General information about credit risk.	Annual				72-74, 76-79
	CR1 – Credit quality of assets.	Quarterly			15	
	CR2 – Changes in stock of defaulted loans and debt securities ¹ .	Quarterly				
	CRB – Additional disclosure related to the credit quality of assets a) to d).	Annual				80, 130-131, 137, 169
	CRB – Additional disclosure related to the credit quality of assets – e) Breakdown of exposures by geographical areas, industry and residual maturity ¹ .	Quarterly			16-18	
	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		20-22, 25-27		
	CRB – Additional disclosure related to the credit quality of assets – g) Ageing analysis of accounting past-due exposures ¹ .	Quarterly	66			169
	CRB – Additional disclosure related to the credit quality of assets – h) Breakdown of restructured exposures between impaired and not impaired exposures.	Quarterly			15	
	CRC – Qualitative disclosure requirements related to credit risk mitigation techniques.	Annual				80
	CR3 – Credit risk mitigation techniques – overview.	Quarterly			15	
	CRD – Qualitative disclosures on banks' use of external credit ratings under the standardized approach (TSA) for credit risk.	Annual				79
	CR4 – Standardized approach – credit risk exposure and Credit Risk Mitigation (CRM) effects.	Quarterly			19	
	CR5 – Standardized approach – exposures by asset classes and risk weights.	Quarterly			20	
	CRE – Qualitative disclosures related to IRB models.	Annual				72-74, 77-81, 89
	CR6 – IRB – Credit risk exposures by portfolio and probability of default (PD) range.	Quarterly			21-28	

Topic	Pillar 3 Disclosure Requirements	Frequency	Page			
			RTS Second Quarter 2019	SFI Second Quarter 2019	SRD Second Quarter 2019	Annual Report 2018
Part 4 – Credit risk	CR7 – IRB – Effect on RWA of credit derivatives used as CRM techniques.	N/A ²	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 ³ .	Annual				
	CR10 – IRB (specialized lending and equities under the simple risk weight method).	N/A		TD does not use this approach.		
Part 5 – Counterparty credit risk	CCRA – Qualitative disclosure related to CCR.	Annual				79-80, 95
	CCR1 – Analysis of CCR exposure by approach.	Quarterly			29	
	CCR2 – CVA capital charge.	Quarterly			30	
	CCR3 – Standardized approach of CCR exposures by regulatory portfolio and risk weights.	Quarterly			30	
	CCR4 – IRB – CCR exposures by portfolio and PD scale.	Quarterly			31-33	
	CCR5 – Composition of collateral for CCR exposure.	Quarterly			34	
	CCR6 – Credit derivatives exposures.	Quarterly			35	
	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			35	
Part 6 – Securitization	SECA – Qualitative disclosure requirements related to securitization exposures.	Annual				64-65, 81, 134, 171-172
	SEC1 – Securitization exposures in the banking book.	Quarterly			39	
	SEC2 – Securitization exposures in the trading book.	Quarterly			39	
	SEC3 – Securitization exposures in the banking book and associated regulatory capital requirements – bank acting as originator or as sponsor.	Quarterly			40	
	SEC4 – Securitization exposures in the banking book and associated capital requirements – bank acting as investor.	Quarterly			41	
Part 7 – Market risk ¹	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 ⁴ estimates with gains/losses.					

¹ 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.

² Not applicable.

³ For annual disclosures, refer to the fourth quarter 2018 SRD.

⁴ Value-at-Risk.

Capital Position – Basel III

(\$ 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 CET1
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

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

Line #	2019		2018			Cross Reference ¹
	Q2	Q1	Q4	Q3	Q2	
1	\$ 21,830	\$ 21,679	\$ 21,267	\$ 21,123	\$ 21,287	A1+A2+B
2	47,980	46,660	46,145	44,223	43,363	C
3	9,743	7,983	6,639	6,498	5,923	D
4	—	—	—	—	—	
5	—	—	—	—	—	
6	79,553	76,322	74,051	71,844	70,573	
7	—	—	—	—	—	
8	(20,022)	(19,681)	(19,285)	(19,079)	(18,856)	E1+E2-E3
9	(2,417)	(2,402)	(2,236)	(2,254)	(2,274)	F1-F2
10	(248)	(279)	(317)	(248)	(121)	G
11	389	1,122	2,568	2,228	2,160	H
12	(1,233)	(977)	(953)	(967)	(734)	I
13	—	—	—	—	—	
14	(116)	(111)	(115)	(109)	(118)	J
15	(10)	(9)	(113)	(65)	(13)	K
16	(31)	(14)	(123)	—	—	
17	—	—	—	—	—	
18	—	—	—	—	—	
19	(1,596)	(1,303)	(1,088)	(1,254)	(1,132)	L1+L2+L3
20	—	—	—	—	—	
21	—	—	—	—	—	
22	—	—	—	—	—	
23	—	—	—	—	—	
24	—	—	—	—	—	
25	—	—	—	—	—	
26	—	—	—	—	—	
27	—	—	—	—	—	
28	(25,284)	(23,654)	(21,662)	(21,748)	(21,088)	
29	54,269	52,668	52,389	50,096	49,485	
30	5,345	5,348	4,996	4,600	4,599	M+N+O
31	5,345	5,348	4,996	4,600	4,599	
32	—	—	—	—	—	
33	1,744	1,730	2,455	2,456	2,455	P
34	—	—	245	245	245	
35	—	—	—	—	—	
36	7,089	7,078	7,696	7,301	7,299	
37	—	—	—	—	—	
38	—	—	—	—	—	
39	—	—	—	—	—	
40	(350)	(350)	(350)	(350)	(350)	Q
41	—	—	—	—	—	
41a	—	—	—	—	—	
42	—	—	—	—	—	
43	(350)	(350)	(350)	(350)	(350)	
44	6,739	6,728	7,346	6,951	6,949	
45	\$ 61,008	\$ 59,396	\$ 59,735	\$ 57,047	\$ 56,434	

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

Capital Position – Basel III (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 G-SIBs and Canadian D-SIBs that are outside the scope of regulatory consolidation, where the institution does not own more than 10% of the issued common share capital of the entity (amount above 10% threshold)
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 risk-weighted assets

Common Equity Tier 1 Capital RWA²

Tier 1 Capital RWA²

Total Capital RWA²

Capital Ratios

Common Equity Tier 1 Capital (as percentage of RWA)

Tier 1 (as percentage of RWA)

Total Capital (as percentage of RWA)

Buffer requirement (minimum CET1 requirement plus capital conservation buffer plus global systemically important banks (G-SIBs) buffer plus domestic systemically important banks (D-SIBs) buffer requirement expressed as percentage of RWA)^{3,4}

of which: capital conservation buffer requirement

of which: bank-specific countercyclical buffer requirement⁵

of which: G-SIB buffer requirement

of which: D-SIB buffer requirement⁶

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

OSFI target (minimum plus conservation buffer plus D-SIB surcharge (if applicable))⁷

Common Equity Tier 1 target ratio

Tier 1 target ratio

Total Capital target ratio

Line #	2019		2018		Cross Reference ¹
	Q2	Q1	Q4	Q3	
46	\$ 8,770	\$ 8,695	\$ 8,927	\$ 7,184	R
47	198	198	198	199	
48	—	—	—	—	S
49	—	—	—	—	
50	1,811	1,862	1,734	1,665	T
51	10,779	10,755	10,859	9,048	
52	(7)	(23)	—	(2)	U
53	—	—	—	—	
54	—	—	—	—	
54a	—	—	—	—	
55	(160)	(160)	(160)	(160)	
56	—	—	—	—	
57	(167)	(183)	(160)	(162)	
58	10,612	10,572	10,699	8,886	
59	71,620	69,968	70,434	65,933	
60	452,267	439,324	n/a	n/a	
60a	n/a	n/a	435,632	428,943	U
60b	n/a	n/a	435,780	429,083	
60c	\$ n/a	\$ n/a	\$ 435,927	\$ 429,222	U
61	12.0 %	12.0 %	12.0 %	11.7 %	
62	13.5	13.5	13.7	13.3	U
63	15.8	15.9	16.2	15.4	
64	8.0	8.0	8.0	8.0	U
65	2.5	2.5	2.5	2.5	
66	—	—	—	—	U
67	—	—	—	—	
67a	1.0	1.0	1.0	1.0	U
68	12.0	12.0	12.0	11.7	
69	8.0	8.0	8.0	8.0	U
70	9.5	9.5	9.5	9.5	
71	11.5	11.5	11.5	11.5	U

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

² Prior to fiscal 2019, each capital ratio had its own RWA measure due to the OSFI prescribed scalar for inclusion of the CVA. For fiscal 2019, CVA is fully phased in, therefore there is only one RWA measure for all ratios.

For fiscal 2018, the corresponding scalars were 80%, 83%, and 86%, respectively.

³ The minimum CET1 requirement prior to the buffers is 4.5%.

⁴ The Financial Stability Board (FSB), in consultation with BCBS and national authorities, has identified the 2018 list of global systemically important banks (G-SIBs), using 2017 fiscal year-end data. The Bank was not identified as a G-SIB.

⁵ The countercyclical buffer surcharge is in effect.

⁶ Common equity capital domestic systemically important bank (D-SIB) surcharge is in effect.

⁷ Reflects Pillar 1 targets and does not include Pillar 2 domestic stability buffer of 1.75%.

Capital Position – Basel III (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.)⁸

Common Equity Tier 1 Capital

Tier 1 Capital

Total Capital

TD Mortgage Corporation

Common Equity Tier 1 Capital

Tier 1 Capital

Total Capital

Line #	2019		2018		
	Q2	Q1	Q4	Q3	Q2
72	\$ 1,541	\$ 1,682	\$ 4,273	\$ 3,075	\$ 4,129
73	5,586	5,397	5,348	5,135	5,061
74	43	41	39	37	34
75	897	944	885	1,029	1,158
76	1,811	1,862	1,734	1,665	1,721
77	2,129	2,152	2,070	2,020	2,041
78	—	—	—	—	—
79	—	—	—	—	—
80	—	—	—	—	—
81	—	—	—	—	—
82	2,025	2,025	2,700	2,700	2,700
83	—	—	31	284	541
84	2,629	2,629	3,505	3,505	3,505
85	—	—	—	—	—
86	15.3 %	15.0 %	14.9 %	14.7 %	14.9 %
87	15.3	15.0	14.9	14.7	14.9
88	16.2	15.9	15.7	15.6	15.7
89	41.2	41.1	40.7	39.9	37.2
90	41.2	41.1	40.7	39.9	37.2
91	41.9	41.8	41.6	40.7	38.1

⁸ On a stand-alone basis, TD Bank, N.A. reports regulatory capital to the Office of the Comptroller of the Currency (OCC) 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 #	2019		2018		
	Q2	Q1	Q4	Q3	Q2
1	\$ 52,668	\$ 52,389	\$ 50,096	\$ 49,485	\$ 46,809
2	24	394	28	28	24
3	(415)	(313)	—	(1,457)	(44)
4	(1,412)	(1,287)	(1,274)	(1,281)	(1,291)
5	98	99	94	89	92
6	3,172	2,392	2,942	3,087	2,898
7	(5)	4	(6)	9	(50)
8	1,020	(112)	596	656	2,028
9	n/a	n/a	n/a	n/a	n/a
10	1	11	(113)	(11)	(156)
11	6	(1)	(2)	(2)	8
12	(356)	(562)	(188)	(203)	(752)
13	31	38	(69)	(127)	1
14	—	—	—	—	—
15	(563)	(384)	285	(177)	(82)
16	54,269	52,668	52,389	50,096	49,485
17	6,728	7,346	6,951	6,949	6,594
18	—	350	400	—	350
19	—	(298)	—	—	—
20	11	(670)	(5)	2	5
21	6,739	6,728	7,346	6,951	6,949
22	61,008	59,396	59,735	57,047	56,434
23	10,572	10,699	8,886	9,536	9,366
24	—	—	1,750	—	—
25	—	—	—	(650)	—
26	—	—	—	—	—
27	(51)	128	69	(56)	59
28	91	(255)	(6)	56	111
29	10,612	10,572	10,699	8,886	9,536
30	\$ 71,620	\$ 69,968	\$ 70,434	\$ 65,933	\$ 65,970

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

(\$ millions)
As at

Cash and due from banks
Interest-bearing deposits with banks
Trading loans, securities, and other
Non-trading financial assets at fair value through profit or loss
Derivatives
Financial assets designated at fair value through profit or loss
Financial assets at fair value through other comprehensive income
Debt securities at amortized cost, net of allowance for credit losses
Securities purchased under reverse repurchase agreements
Loans
Allowance for loan losses
Eligible allowance reflected in Tier 2 regulatory capital
Shortfall of allowance to expected loss
Allowances not reflected in regulatory capital
Other
Investment in TD Ameritrade
Significant investments exceeding regulatory thresholds
Significant investments not exceeding regulatory thresholds
Imputed goodwill
Goodwill
Other intangibles
Other intangibles (Mortgage Servicing Rights)
Deferred tax assets
Deferred tax assets (DTA) excluding those arising from temporary differences
DTA's (net of associated deferred tax liabilities (DTL)) realizable through net operating loss (NOL) carryback
DTA's (net of associated DTL's) arising from temporary differences but not realizable through NOL carryback
DTA's (net of associated DTL's) arising from temporary differences but not realizable through NOL carryback exceeding regulatory thresholds
Other DTA/DTL adjustments⁴
Significant investments in financials (excluding TD Ameritrade)
Significant investments exceeding regulatory thresholds
Significant investments not exceeding regulatory thresholds
Defined pension benefits
Other Assets

TOTAL ASSETS

LIABILITIES AND EQUITY⁵

Trading deposits
Derivatives
Securitization liabilities at fair value
Financial liabilities designated at fair value through profit or loss
Deposits
Other
Deferred tax liabilities
Goodwill
Intangible assets (excluding mortgage servicing rights)
Other deferred tax liabilities (Cash flow hedges and other DTL's)
Other DTA/DTL adjustments⁴
Gains and losses due to changes in own credit risk on fair value liabilities
Other liabilities
Subordinated notes and debentures
Directly issued qualifying Tier 2 instruments
Directly issued capital instruments subject to phase out from Tier 2
Capital instruments not allowed for regulatory capital

Liabilities

Common Shares
Preferred Shares
Directly issued qualifying Additional Tier 1 instruments
Treasury Shares – Common
Treasury Shares – Preferred
Treasury Shares – non-viability contingent capital (NVCC) Preferred Shares
Treasury Shares – non-NVCC Preferred Shares
Contributed Surplus
Contributed surplus – Common Shares
Contributed surplus – Preferred Shares
Retained Earnings
Accumulated other comprehensive income (AOCI)
Cash flow hedges requiring derecognition
Net AOCI included as capital

TOTAL LIABILITIES AND EQUITY

Line #	2019 Q2		Cross Reference ¹
	Balance Sheet ¹	Under Regulatory scope of consolidation ²	
1	\$ 5,009	\$ 5,009	
2	28,453	28,373	
3	132,805	132,805	
4	4,202	3,698	
5	43,624	43,624	
6	3,379	1,044	
7	125,109	123,171	
8	111,544	111,306	
9	149,949	149,949	
10	667,393	667,393	
11	(3,778)	(3,778)	
12		(1,811)	T
13		(1,233)	I
14		(734)	
15	88,899	86,939	
16		1,314	L1
17		4,815	
18		2,898	E1
19		17,232	E2
20		2,580	F1
21		43	
22		248	G
23		897	
24		1,201	
25		–	
26		(306)	
27		18	L2
28		65	
29		10	K
30		55,924	
31	1,356,588	1,349,533	
32	53,974	53,974	
33	42,199	42,199	
34	12,738	12,738	
35	57,783	57,783	
36	875,343	875,343	
37	220,685	213,630	
38		108	E3
39		163	F2
40		227	
41		(306)	
42		116	J
43		213,322	
44	8,968	8,968	
45		8,770	R
46		198	S
47		–	
48	1,271,690	1,264,635	
49	21,718	21,718	A1
50	5,350	5,350	
51		5,350	M
52	(49)	(49)	A2
53	(6)	(6)	
54		(6)	N
55		–	
56	162	162	
57		161	B
58		1	O
59	47,980	47,980	C
60	9,743	9,743	D
61		(389)	H
62		10,132	
63	\$ 1,356,588	\$ 1,349,533	

¹ As per Balance Sheet on page 12 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 \$7.1 billion and total equity of \$1.7 billion, of which \$264 million is deducted from CET1, \$350 million is deducted from additional Tier 1, and \$160 million is deducted from Tier 2 Capital. Cross referenced (L3, Q, U) 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.

⁵ Included in current cap on additional Tier 1 instruments is \$1.7 billion related to TD Capital Trust IV (no longer consolidated as the Bank is not the primary beneficiary of the trust) (P– cross referenced to Capital Position – Basel III on page 1).

Leverage Ratio

(\$ millions, except as noted)
As at

Summary comparison of accounting assets vs. leverage ratio exposure measure

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 (SFT)
Adjustment for off-balance sheet items (credit equivalent amounts)
Other adjustments

Leverage Ratio Exposure

Leverage Ratio Common Disclosure Template

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)

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

Leverage Ratio

Line #	2019		2018			OSFI Template
	Q2	Q1	Q4	Q3	Q2	
1	\$ 1,356,588	\$ 1,322,506	\$ 1,334,903	\$ 1,292,504	\$ 1,283,836	1
2	(5,970)	(5,963)	(5,800)	(5,981)	(5,497)	2
3	(5,341)	(5,726)	–	–	–	3
4	–	–	–	–	–	4
5	13,667	17,107	(7,378)	594	(6,012)	5
6	(25,510)	(22,889)	(19,658)	(16,893)	(8,397)	6
7	159,414	152,743	150,910	137,850	137,238	7
8	(25,251)	(23,707)	(22,039)	(22,264)	(21,728)	8
9	\$ 1,467,597	\$ 1,434,071	\$ 1,430,938	\$ 1,385,810	\$ 1,379,440	9
10	\$ 1,151,972	\$ 1,133,480	\$ 1,144,580	\$ 1,109,661	\$ 1,081,918	1
11	–	–	–	–	–	2
12	(5,970)	(6,246)	(5,662)	(5,663)	(5,383)	3
13	(25,519)	(23,893)	(21,897)	(21,989)	(21,319)	4
14	1,120,483	1,103,341	1,117,021	1,082,009	1,055,216	5
15	18,015	21,603	12,381	13,409	14,524	6
16	44,573	46,295	42,349	39,885	39,472	7
17	–	–	–	–	–	8
18	860	1,836	1,121	1,874	903	9
19	(187)	(1,288)	(566)	(1,344)	(430)	10
20	63,261	68,446	55,285	53,824	54,469	11
21	149,949	132,430	127,379	129,019	140,914	12
22	(28,279)	(25,212)	(21,631)	(19,383)	(11,037)	13
23	2,769	2,323	1,974	2,491	2,640	14
24	–	–	–	–	–	15
25	124,439	109,541	107,722	112,127	132,517	16
26	577,581	555,650	550,977	529,419	528,197	17
27	(418,167)	(402,907)	(400,067)	(391,569)	(390,959)	18
28	159,414	152,743	150,910	137,850	137,238	19
29	61,008	59,396	59,735	57,047	56,434	20
30	\$ 1,467,597	\$ 1,434,071	\$ 1,430,938	\$ 1,385,810	\$ 1,379,440	21
31	4.2 %	4.1 %	4.2 %	4.1 %	4.1 %	22

Key Metrics – TLAC Requirements (KM2)

(\$ millions, except as noted)

	Line #	2019		OSFI Template
		Q2	Q1	
Resolution group 1				
Total loss absorbing capacity (TLAC) available	1	\$ 78,206	\$ 70,603	1
Total RWA at the level of the resolution group	2	452,267	439,324	2
TLAC ratio: TLAC as a percentage of RWA (row 1 / row 2) %	3	17.3 %	16.1 %	3
Leverage ratio exposure measure at the level of the resolution group	4	\$ 1,467,597	\$ 1,434,071	4
TLAC Leverage Ratio: TLAC as a percentage of leverage ratio exposure measure (row 1 / row 4) %	5	5.3 %	4.9 %	5
Does the subordination exemption in the antepenultimate paragraph of Section 11 of the FSB TLAC Term Sheet apply?	6	Yes	Yes	6a
Does the subordination exemption in the penultimate paragraph of Section 11 of the FSB TLAC Term Sheet apply?	7	No	No	6b
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 (%)	8	n/a	n/a	6c

TLAC Composition (TLAC1)

(\$ millions, except as noted)

Line #	2019	
	Q2	Q1
Regulatory capital elements of TLAC and adjustments		
Common Equity Tier 1 capital (CET1)	\$ 54,269	\$ 52,668
Additional Tier 1 capital (AT1) before TLAC adjustments	6,739	6,728
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)	6,739	6,728
Tier 2 capital (T2) before TLAC adjustments	10,612	10,572
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)	10,612	10,572
TLAC arising from regulatory capital (sum of lines 1, 5 and 10)	71,620	69,968
Non-regulatory capital elements of TLAC		
External TLAC instruments issued directly by the bank and subordinated to excluded liabilities	n/a	n/a
External TLAC instruments issued directly by the bank which are not subordinated to excluded liabilities but meet all other TLAC term sheet requirements	6,587	635
Of which: amount eligible as TLAC after application of the caps	n/a	n/a
External TLAC instruments issued by funding vehicles prior to January 1, 2022	—	—
Eligible ex ante commitments to recapitalize a G-SIB in resolution	n/a	n/a
TLAC arising from non-regulatory capital instruments before adjustments (sum of lines 12, 13, 15 and 16)	6,587	635
Non-regulatory capital elements of TLAC: adjustments		
TLAC before deductions (sum of lines 11 and 17)	78,207	70,603
Deductions of exposures between MPE resolution groups that correspond to items eligible for TLAC (not applicable to SPE G-SIBs and D-SIBs)	n/a	n/a
Deduction of investments in own other TLAC liabilities	1	—
Other adjustments to TLAC	—	—
TLAC available after deductions (sum of lines 18 to 21)	78,206	70,603
Risk-weighted assets and leverage exposure measure for TLAC purposes		
Total risk-weighted assets adjusted as permitted under the TLAC regime	452,267	439,324
Leverage exposure measure	1,467,597	1,434,071
TLAC ratios and buffers		
TLAC Ratio (as a percentage of risk-weighted assets adjusted as permitted under the TLAC regime) (line 22/line 23)	17.3 %	16.1 %
TLAC Leverage Ratio (as a percentage of leverage exposure) (line 22/line 24)	5.3	4.9
CET1 (as a percentage of risk-weighted assets) available after meeting the resolution group's minimum capital and TLAC requirements ¹	n/a	n/a
Institution-specific buffer (capital conservation buffer plus countercyclical buffer plus higher loss absorbency, expressed as a percentage of risk-weighted assets)	3.5 %	3.5 %
Of which: capital conservation buffer	2.5	2.5
Of which: bank specific countercyclical buffer	—	—
Of which: D-SIB / G-SIB buffer	1.0	1.0

¹ Not applicable until the first quarter of 2022.

Creditor Ranking at Legal Entity Level (TLAC3)

(\$ millions) As at	Line #	2019 Q2					2019 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)					
Description of creditor ranking (free text)		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
Total capital and liabilities net of credit risk mitigation	2	21,718	5,350	9,207	6,598		42,873	21,661	5,350	9,168	632		36,811
Subset of row 2 that are excluded liabilities	3	80	6	23	1		110	153	3	2	–		158
Total capital and liabilities less excluded liabilities (row 2 minus row 3)	4	21,638	5,344	9,184	6,597		42,763	21,508	5,347	9,166	632		36,653
Subset of row 4 that are potentially eligible as TLAC	5	21,638	5,344	9,184	6,597		42,763	21,508	5,347	9,166	632		36,653
Subset of row 5 with 1 year ≤ residual maturity < 2 years	6				199		199				112		112
Subset of row 5 with 2 years ≤ residual maturity < 5 years	7				6,339		6,339				494		494
Subset of row 5 with 5 years ≤ residual maturity < 10 years	8			4,428	59		4,487			4,448	26		4,474
Subset of row 5 with residual maturity ≥ 10 years, but excluding perpetual securities	9			4,756			4,756			4,718			4,718
Subset of row 5 that is perpetual securities	10	21,638	5,344				26,982	21,508	5,347				26,855

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)¹

(\$ millions) As at	Line #	Risk-Weighted Assets (RWA) ²				Minimum capital requirements ³				OSFI Template
		2019 Q2	2019 Q1	2018 Q4	2018 Q3	2019 Q2	2019 Q1	2018 Q4	2018 Q3	
Credit risk (excluding counterparty credit risk) (CCR)	1	\$ 342,045	\$ 328,625	\$ 325,936	\$ 319,777	\$ 27,364	\$ 26,290	\$ 26,075	\$ 25,582	1
Of which: standardized approach (SA) ⁴	2	163,721	162,318	160,732	157,319	13,098	12,985	12,859	12,586	2
Of which: internal ratings-based (IRB) approach	3	178,324	166,307	165,204	162,458	14,266	13,305	13,216	12,996	3
Counterparty credit risk	4	14,655	14,388	14,267	13,674	1,172	1,151	1,141	1,094	4
Of which: standardized approach for counterparty credit risk (SA-CCR)	5	7,358	6,974	—	—	588	558	—	—	5
Of which: current exposure method (CEM)	6	—	—	5,209	5,151	—	—	417	412	n/a
Of which: internal model method (IMM)	7	—	—	—	—	—	—	—	—	6
Of which: other CCR ⁵	8	7,297	7,414	9,058	8,523	584	593	724	682	n/a
Equity positions in banking book under market-based approach	9	—	—	—	—	—	—	—	—	7
Equity investments in funds – look-through approach	10	331	299	212	219	26	24	17	18	8
Equity investments in funds – mandate-based approach	11	48	46	45	57	4	4	4	5	9
Equity investments in funds – fall-back approach	12	375	298	260	217	30	24	21	17	10
Settlement risk	13	55	27	124	25	4	2	10	2	11
Securitization exposures in banking book ⁶	14	11,455	10,946	13,520	13,552	917	876	1,082	1,084	12
Of which: grandfathered	15	(1,544)	(1,544)	—	—	(123)	(123)	—	—	12a
Of which: securitization internal ratings-based approach (SEC-IRBA)	16	—	—	9,205	9,526	—	—	737	762	13
Of which: securitization external ratings-based approach (SEC-ERBA), including internal assessment approach (IAA)	17	12,999	12,490	—	—	1,040	999	—	—	14
Of which: securitization standardized approach (SEC-SA)	18	—	—	4,315	4,026	—	—	345	322	15
Market risk	19	13,028	15,735	13,213	14,670	1,042	1,259	1,057	1,174	16
Of which: standardized approach (SA)	20	574	483	183	163	46	39	15	13	17
Of which: internal model approaches (IMA)	21	12,454	15,252	13,030	14,507	996	1,220	1,042	1,161	18
Operational risk	22	53,959	53,006	52,375	51,250	4,317	4,240	4,190	4,100	19
Of which: basic indicator approach	23	—	—	—	—	—	—	—	—	20
Of which: standardized approach	24	—	—	4,249	4,090	—	—	340	327	21
Of which: advanced measurement approach	25	53,959	53,006	48,126	47,160	4,317	4,240	3,850	3,773	22
Amounts below the thresholds for deduction (subject to 250% risk weight)	26	16,316	15,954	15,680	15,502	1,305	1,276	1,254	1,239	23
Floor adjustment	27	—	—	—	—	—	—	—	—	24
Total (lines 1+4+9+10+11+12+13+14+19+22+26+27)	28	\$ 452,267	\$ 439,324	\$ 435,632	\$ 428,943	\$ 36,181	\$ 35,146	\$ 34,851	\$ 34,315	25

¹ Prior to fiscal 2019, represents CET1 RWA which includes CVA at 80%.

² RWA include 6% scalar when appropriate.

³ Minimum capital requirements equal 8% of RWA.

⁴ Includes other assets and equities which use a regulatory prescribed risk weight.

⁵ Includes qualifying central counterparties (QCCPs), CVA and repo style transactions.

⁶ Prior to implementation of the new securitization framework as of the first quarter of 2019, the lines for SEC-IRBA represented IRB-RBA (including IAA), SEC-ERBA and IAA represented IRB-SFA and SEC-SA represented SA/SSFA.

Flow Statements for Risk-Weighted Assets – Credit Risk

(\$ millions)
As at

LINE #		2019 Q2				2019 Q1			
		Non-counterparty credit risk ¹	Of which internal rating-based (IRB) approach ²	Counterparty credit risk ³	Of which IRB approach	Non-counterparty credit risk ¹	Of which internal rating-based (IRB) approach ²	Counterparty credit risk ³	Of which IRB approach
RWA, balance at beginning of period	1	\$ 356,195	\$ 166,307	\$ 14,388	\$ 8,612	\$ 355,777	\$ 165,204	\$ 14,267	\$ 6,878
Asset size ⁴	2	5,226	3,098	76	600	(307)	1,121	(662)	(228)
Asset quality ⁵	3	1,958	1,957	36	24	(299)	(299)	(27)	(18)
Model updates ⁶	4	2,162	6,114	—	—	368	368	—	—
Methodology and policy ⁷	5	—	—	—	—	—	—	767	2,000
Acquisitions and disposals	6	—	—	—	—	288	3	—	—
Foreign exchange movements ⁸	7	4,637	848	155	(19)	(417)	(90)	43	(20)
Other ⁹	8	447	—	—	—	785	—	—	—
RWA, balance at end of period	9	\$ 370,625	\$ 178,324	\$ 14,655	\$ 9,217	\$ 356,195	\$ 166,307	\$ 14,388	\$ 8,612

		2018 Q4				2018 Q3		2018 Q2	
		Non-counterparty credit risk ¹	Of which internal rating-based (IRB) approach ²	Counterparty credit risk ³	Of which IRB approach	Non-counterparty credit risk ¹	Counterparty credit risk ³	Non-counterparty credit risk ¹	Counterparty credit risk ³
RWA, balance at beginning of period	10	\$ 349,350	\$ 162,458	\$ 13,673	\$ 6,694	\$ 338,523	\$ 13,656	\$ 323,071	\$ 12,529
Asset size ⁴	11	3,857	2,585	535	154	4,613	177	4,776	859
Asset quality ⁵	12	(701)	(701)	24	16	(1,033)	(224)	1,342	(40)
Model updates ⁶	13	131	131	—	—	4,784	—	(215)	—
Methodology and policy ⁷	14	—	—	—	—	—	—	—	—
Acquisitions and disposals	15	—	—	—	—	(447)	—	—	—
Foreign exchange movements ⁸	16	2,750	731	35	14	2,922	64	9,281	308
Other ⁹	17	390	—	—	—	(12)	—	268	—
RWA, balance at end of period	18	\$ 355,777	\$ 165,204	\$ 14,267	\$ 6,878	\$ 349,350	\$ 13,673	\$ 338,523	\$ 13,656

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 fully phased-in CVA RWA. In fiscal 2018, CVA RWA was phased in at 80%.

⁴ The Asset size category consists of organic changes in book size and composition (including new business and maturing loans), and for the second quarter of 2019, increased due to growth in corporate lending in the Wholesale Banking segment and various portfolios in the Canadian Retail and U.S. Retail 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.

⁶ The Model updates category relates to model implementation, changes in model scope, or any changes to address model malfunctions. Effective the second quarter of 2019, OSFI approved the Bank to implement the credit risk AIRB approach to calculate the RWA on a credit card portfolio in the Canadian Retail segment.

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 are mainly due to 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 disposals
Foreign exchange movements and other⁴
RWA, balance at end of period

LINE #	2019		2018		
	Q2	Q1	Q4	Q3	Q2
1	\$ 15,735	\$ 13,213	\$ 14,670	\$ 15,248	\$ 11,303
2	(2,197)	2,522	(1,457)	(578)	3,945
3	(510)	—	—	—	—
4	—	—	—	—	—
5	—	—	—	—	—
6	n/m ⁵	n/m	n/m	n/m	n/m
7	\$ 13,028	\$ 15,735	\$ 13,213	\$ 14,670	\$ 15,248

¹ The Movement in risk levels category reflects changes in risk due to position changes and market movements. A decrease in interest rate risk and exposure to government and financial bonds contributed to the decrease in RWA.

² The Model updates category reflects updates to the model to reflect recent experience and change in model scope. Improvements in the data quality drove the changes in the model results.

³ The Methodology and policy category reflects newly adopted methodology changes to the calculations driven by regulatory policy changes.

⁴ Foreign exchange movements and other are deemed not meaningful since RWA exposure measures are calculated in Canadian dollars. Therefore, no foreign exchange translation is required.

⁵ 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
Movement in risk levels²
Model updates³
Methodology and policy⁴
Acquisitions and disposals
Foreign exchange movements and other⁵
RWA, balance at end of period

LINE #	2019		2018		
	Q2	Q1	Q4	Q3	Q2
1	\$ 53,006	\$ 52,375	\$ 51,250	\$ 50,392	\$ 49,416
2	—	—	159	263	31
3	412	2,417	706	312	14
4	—	(1,739)	—	—	—
5	—	—	—	—	—
6	—	—	—	—	—
7	541	(47)	260	283	931
8	\$ 53,959	\$ 53,006	\$ 52,375	\$ 51,250	\$ 50,392

¹ The movement in the Revenue generation category is due to a change in gross income.

² The Movement in risk levels category primarily reflects changes in risk due to operational loss experience, business environment, internal control factors, and scenario analysis.

³ The Model updates category relates to model implementation, changes in model scope, or any changes to address model malfunctions. Entities that were previously reported under TSA have been transitioned to the advanced measurement approach effective the first quarter of 2019.

⁴ The Methodology and policy category reflects newly adopted methodology changes to the calculations driven by regulatory policy changes.

⁵ Foreign exchange movements are mainly due to a change in the U.S. dollar foreign exchange rate for the U.S. portfolios in the U.S. Retail segment.

Differences Between Accounting and Regulatory Scopes of Consolidation and Mapping of Financial Statements with Regulatory Risk Categories (LI1)

(\$ millions)
As at

LINE
#

2019
Q2

		Carrying values of items ¹						
		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	Not subject to capital requirements or subject to deduction from capital
Assets								
Cash and due from banks	1	\$ 5,009	\$ 5,009	\$ 5,097	\$ -	\$ -	\$ -	\$ (88)
Interest-bearing deposits with banks	2	28,453	28,373	28,262	-	-	111	-
Trading loans, securities, and other	3	132,805	132,805	63	-	-	130,627	2,115
Non-trading financial assets at fair value through profit or loss	4	4,202	3,698	904	-	3,035	-	(241)
Derivatives	5	43,624	43,624	-	43,624	-	39,415	-
Financial assets designated at fair value through profit or loss	6	3,379	1,044	1,044	-	-	-	-
Financial assets at fair value through other comprehensive income	7	125,109	123,171	102,750	-	20,229	-	192
Debt securities at amortized cost, net of allowance for credit losses	8	111,544	111,306	69,935	-	41,433	-	(62)
Securities purchased under reverse repurchase agreements	9	149,949	149,949	-	149,949	-	4,796	-
Residential mortgages	10	227,258	227,258	227,318	-	-	-	(60)
Consumer instalment and other personal	11	174,708	174,708	174,008	-	-	-	700
Credit card	12	36,004	36,004	31,470	-	-	-	4,534
Business and government	13	229,423	229,423	221,164	-	8,449	-	(190)
Allowance for loan losses	14	(3,778)	(3,778)	(158)	-	-	-	(3,620)
Customers' liability under acceptances	15	16,189	16,189	16,189	-	-	-	-
Investment in TD Ameritrade	16	9,027	9,027	-	-	-	-	9,027
Goodwill	17	17,232	17,232	-	-	-	-	17,232
Other intangibles	18	2,623	2,623	-	-	-	-	2,623
Land, buildings, equipment, and other depreciable assets	19	5,500	5,445	5,445	-	-	-	-
Deferred tax assets	20	2,136	2,040	1,511	-	-	-	529
Amounts receivable from brokers, dealers and clients	21	18,954	18,954	963	-	-	-	17,991
Other assets	22	17,238	15,429	9,337	5,579	407	-	106
Total assets	23	\$ 1,356,588	\$ 1,349,533	\$ 895,302	\$ 199,152	\$ 73,553	\$ 174,949	\$ 50,788
Liabilities								
Trading deposits	24	\$ 53,974	\$ 53,974	\$ -	\$ -	\$ -	\$ 8,568	\$ 45,406
Derivatives	25	42,199	42,199	-	42,199	-	37,937	-
Securitization liabilities at fair value	26	12,738	12,738	-	-	-	12,738	-
Financial liabilities designated at fair value through profit or loss	27	57,783	57,783	-	-	-	4	57,779
Deposits	28	875,343	875,343	-	-	-	-	875,343
Acceptances	29	16,189	16,189	-	-	-	-	16,189
Obligations related to securities sold short	30	36,365	36,365	-	-	-	34,972	1,393
Obligations related to securities sold under repurchase agreements	31	107,885	107,885	-	107,885	-	1,893	-
Securitization liabilities at amortized cost	32	14,020	14,020	-	-	-	-	14,020
Amounts payable to brokers, dealers, and clients	33	19,323	19,323	-	-	-	-	19,323
Insurance-related liabilities	34	6,644	18	-	-	-	-	18
Other liabilities	35	20,259	19,830	-	-	-	-	19,830
Subordinated notes and debentures	36	8,968	8,968	-	-	-	-	8,968
Total liabilities	37	\$ 1,271,690	\$ 1,264,635	\$ -	\$ 150,084	\$ -	\$ 96,112	\$ 1,058,269

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 #	2019 Q2
	Items subject to
	Counterparty credit risk framework ¹
	Credit risk framework
	Securitization framework
	Market risk framework
	Total
1	\$ 1,342,956
2	\$ 246,196
3	\$ 1,096,760
4	\$ 292,015
5	\$ 47,850
6	\$ 55,578
7	\$ 215,770
8	\$ 1,707,973

Asset carrying value amount under scope of regulatory consolidation

Liabilities carrying value amount under regulatory scope of consolidation

Total net amount under regulatory scope of consolidation

Off-balance sheet amounts

Differences due to different netting rules, other than those already included in line 2

Adjustment for derivatives and PFE

Gross up for repo-style transactions

Exposure amounts considered for regulatory purposes

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 #	2019 Q2				2019 Q1			
		Gross carrying values of:				Gross carrying values of:			
		Defaulted exposures ³	Non-defaulted exposures	Allowances/ impairments ⁴	Net values	Defaulted exposures ³	Non-defaulted exposures	Allowances/ impairments ⁴	Net values
Loans	1	\$ 3,296	\$ 668,876	\$ (3,762)	\$ 668,410	\$ 3,534	\$ 654,217	\$ (3,713)	\$ 654,038
Debt securities	2	–	168,920	(1)	168,919	–	166,316	(1)	166,315
Off-balance sheet exposures	3	–	491,731	(1,105)	490,626	–	480,440	(1,069)	479,371
Total	4	\$ 3,296	\$ 1,329,527	\$ (4,868)	\$ 1,327,955	\$ 3,534	\$ 1,300,973	\$ (4,783)	\$ 1,299,724
		2018 Q4							
		Gross carrying values of:							
		Defaulted exposures ³	Non-defaulted exposures	Allowances/ impairments ⁴	Net values				
Loans	5	\$ 3,154	\$ 652,241	\$ (3,531)	\$ 651,864				
Debt securities	6	–	169,461	–	169,461				
Off-balance sheet exposures	7	–	478,016	(1,029)	476,987				
Total	8	\$ 3,154	\$ 1,299,718	\$ (4,560)	\$ 1,298,312				

¹ Excludes insurance subsidiaries, securitization exposures, and assets at fair value through profit or loss.

² Restructured exposures as at April 30, 2019 are \$1,129 million (January 31, 2019 – \$1,091 million; October 31, 2018 – \$1,089 million), of which \$619 million (January 31, 2019 – \$868 million; October 31, 2018 – \$879 million) is considered impaired.

³ Includes total impaired exposures, of which \$1,978 million as at April 30, 2019 (January 31, 2019 – \$1,656 million; October 31, 2018 – \$1,590 million) is in the default category and \$1,318 million as at April 30, 2019 (January 31, 2019 – \$1,878 million; October 31, 2018 – \$1,564 million) is in the high risk/watch and classified categories.

⁴ Includes Stage 1, 2, and 3 allowances.

Credit Risk Mitigation Techniques – Overview (CR3)¹

(\$ millions) As at	LINE #	2019 Q2					2019 Q1				
		<div>Exposures unsecured carrying amountExposures securedExposures secured by collateral²Exposures secured by financial guaranteesExposures secured by credit derivatives³</div>					<div>Exposures unsecured carrying amountExposures securedExposures secured by collateral²Exposures secured by financial guaranteesExposures secured by credit derivatives³</div>				
Loans	1	\$ 245,427	\$ 426,745	\$ 308,182	\$ 118,563	\$ –	\$ 235,941	\$ 421,810	\$ 301,249	\$ 120,561	\$ –
Debt securities	2	167,173	1,747	–	65	1,682	164,431	1,885	–	76	1,809
Total	3	\$ 412,600	\$ 428,492	\$ 308,182	\$ 118,628	\$ 1,682	\$ 400,372	\$ 423,695	\$ 301,249	\$ 120,637	\$ 1,809
<i>Of which: defaulted</i>	4	<i>1,755</i>	<i>1,541</i>	<i>1,292</i>	<i>249</i>	<i>–</i>	<i>2,007</i>	<i>1,527</i>	<i>1,286</i>	<i>241</i>	<i>–</i>
		2018 Q4									
		<div>Exposures unsecured carrying amountExposures securedExposures secured by collateral²Exposures secured by financial guaranteesExposures secured by credit derivatives³</div>									
Loans	5	\$ 233,061	\$ 422,334	\$ 299,846	\$ 122,488	\$ –					
Debt securities	6	167,768	1,693	–	91	1,602					
Total	7	\$ 400,829	\$ 424,027	\$ 299,846	\$ 122,579	\$ 1,602					
<i>Of which: defaulted</i>	8	<i>1,622</i>	<i>1,532</i>	<i>1,307</i>	<i>225</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 April 30, 2019, the impact to RWA from credit derivatives used as CRM techniques is a decrease of \$1.4 billion (January 31, 2019 – a decrease of \$1.3 billion; October 31, 2018 – a decrease of \$1.3 billion) (CR7).

Gross Credit Risk Exposures¹

(\$ millions) As at		LINE #	2019 Q2						2019 Q1					
			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	\$ 326,839	\$ 53,074	\$ –	\$ –	\$ –	\$ 379,913	\$ 323,751	\$ 52,451	\$ –	\$ –	\$ –	\$ 376,202
Qualifying revolving retail		2	36,060	94,279	–	–	–	130,339	30,408	81,852	–	–	–	112,260
Other retail		3	82,351	6,891	–	–	41	89,283	85,950	6,795	–	–	38	92,783
		4	445,250	154,244	–	–	41	599,535	440,109	141,098	–	–	38	581,245
Non-retail														
Corporate		5	214,622	84,558	181,736	18,638	16,157	515,711	209,135	81,639	160,675	15,899	16,441	483,789
Sovereign		6	186,351	1,304	35,073	14,837	2,760	240,325	186,752	1,340	31,872	16,127	2,678	238,769
Bank		7	24,830	5,108	80,509	16,093	4,606	131,146	27,354	5,033	64,434	18,564	4,328	119,713
		8	425,803	90,970	297,318	49,568	23,523	887,182	423,241	88,012	256,981	50,590	23,447	842,271
Total		9	\$ 871,053	\$ 245,214	\$ 297,318	\$ 49,568	\$ 23,564	\$ 1,486,717	\$ 863,350	\$ 229,110	\$ 256,981	\$ 50,590	\$ 23,485	\$ 1,423,516
By Country of Risk														
Canada		10	\$ 481,966	\$ 141,505	\$ 117,722	\$ 14,499	\$ 9,312	\$ 765,004	\$ 474,051	\$ 128,932	\$ 99,799	\$ 12,366	\$ 9,683	\$ 724,831
United States		11	330,155	100,028	99,442	14,429	13,285	557,339	324,966	96,978	81,646	17,386	12,702	533,678
Other International														
Europe		12	38,742	2,835	67,230	15,053	738	124,598	42,489	2,354	60,535	15,620	729	121,727
Other		13	20,190	846	12,924	5,587	229	39,776	21,844	846	15,001	5,218	371	43,280
		14	58,932	3,681	80,154	20,640	967	164,374	64,333	3,200	75,536	20,838	1,100	165,007
Total		15	\$ 871,053	\$ 245,214	\$ 297,318	\$ 49,568	\$ 23,564	\$ 1,486,717	\$ 863,350	\$ 229,110	\$ 256,981	\$ 50,590	\$ 23,485	\$ 1,423,516
By Residual Contractual Maturity														
Within 1 year		16	\$ 286,220	\$ 171,894	\$ 297,318	\$ 25,959	\$ 10,723	\$ 792,114	\$ 289,140	\$ 158,058	\$ 256,981	\$ 27,207	\$ 9,784	\$ 741,170
Over 1 year to 5 years		17	402,177	70,865	–	13,445	11,819	498,306	397,921	68,605	–	13,240	12,811	492,577
Over 5 years		18	182,656	2,455	–	10,164	1,022	196,297	176,289	2,447	–	10,143	890	189,769
Total		19	\$ 871,053	\$ 245,214	\$ 297,318	\$ 49,568	\$ 23,564	\$ 1,486,717	\$ 863,350	\$ 229,110	\$ 256,981	\$ 50,590	\$ 23,485	\$ 1,423,516
Non-Retail Exposures by Industry Sector														
Real estate														
Residential		20	\$ 25,597	\$ 2,192	\$ 1	\$ 142	\$ 1,443	\$ 29,375	\$ 25,080	\$ 2,795	\$ 1	\$ 89	\$ 1,426	\$ 29,391
Non-residential		21	39,599	5,655	10	748	414	46,426	38,440	5,321	20	669	417	44,867
Total real-estate		22	65,196	7,847	11	890	1,857	75,801	63,520	8,116	21	758	1,843	74,258
Agriculture		23	7,426	335	5	36	21	7,823	7,184	399	5	28	20	7,636
Automotive		24	12,894	5,628	41	896	95	19,554	11,976	5,103	2	965	89	18,135
Financial		25	34,635	14,118	258,393	25,513	1,672	334,331	37,446	13,363	208,454	26,164	1,686	287,113
Food, beverage, and tobacco		26	6,051	3,505	–	405	498	10,459	5,659	3,120	–	373	497	9,649
Forestry		27	1,547	640	–	36	51	2,274	1,363	755	–	25	49	2,192
Government, public sector entities, and education		28	200,179	4,466	35,493	15,595	7,016	262,749	200,045	4,288	32,351	16,780	6,386	259,850
Health and social services		29	18,616	2,976	145	192	2,970	24,899	18,163	2,165	286	169	2,081	22,864
Industrial construction and trade contractors		30	4,501	1,654	85	28	339	6,607	4,543	1,416	59	21	395	6,434
Metals and mining		31	4,151	3,360	164	320	783	8,778	4,000	3,461	90	427	754	8,732
Pipelines, oil, and gas		32	7,816	12,609	674	1,534	1,461	24,094	7,563	11,945	1,140	1,348	2,190	24,186
Power and utilities		33	5,179	6,983	10	528	2,995	15,695	5,440	7,586	22	501	3,730	17,279
Professional and other services		34	15,382	5,618	785	304	942	23,031	15,181	5,200	782	291	909	22,363
Retail sector		35	7,263	2,907	254	96	221	10,741	6,764	2,999	307	91	230	10,391
Sundry manufacturing and wholesale		36	10,639	7,364	65	500	442	19,010	10,152	7,587	27	513	434	18,713
Telecommunications, cable, and media		37	6,837	6,484	–	906	563	14,790	6,426	5,898	–	719	560	13,603
Transportation		38	12,573	2,071	36	728	1,149	16,557	12,460	2,059	52	632	1,151	16,354
Other		39	4,918	2,405	1,157	1,061	448	9,989	5,356	2,552	13,383	785	443	22,519
Total		40	\$ 425,803	\$ 90,970	\$ 297,318	\$ 49,568	\$ 23,523	\$ 887,182	\$ 423,241	\$ 88,012	\$ 256,981	\$ 50,590	\$ 23,447	\$ 842,271

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 #	2018 Q4						2018 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	\$ 322,384	\$ 52,157	\$ –	\$ –	\$ –	\$ 374,541	\$ 315,828	\$ 51,315	\$ –	\$ –	\$ –	\$ 367,143
Qualifying revolving retail		2	30,549	81,839	–	–	–	112,388	29,884	79,968	–	–	–	109,852
Other retail		3	86,488	6,821	–	–	39	93,348	85,209	6,648	–	–	43	91,900
		4	439,421	140,817	–	–	39	580,277	430,921	137,931	–	–	43	568,895
Non-retail														
Corporate		5	206,808	81,706	160,300	12,995	16,972	478,781	201,554	80,248	166,020	11,040	16,186	475,048
Sovereign		6	187,848	1,686	23,750	16,556	2,522	232,362	187,923	1,422	28,719	14,698	1,771	234,533
Bank		7	28,279	3,648	71,704	20,600	4,083	128,314	27,737	3,253	64,610	18,210	3,445	117,255
		8	422,935	87,040	255,754	50,151	23,577	839,457	417,214	84,923	259,349	43,948	21,402	826,836
Total		9	\$ 862,356	\$ 227,857	\$ 255,754	\$ 50,151	\$ 23,616	\$ 1,419,734	\$ 848,135	\$ 222,854	\$ 259,349	\$ 43,948	\$ 21,445	\$ 1,395,731
By Country of Risk														
Canada		10	\$ 475,068	\$ 128,554	\$ 105,967	\$ 16,295	\$ 10,005	\$ 735,889	\$ 464,056	\$ 126,098	\$ 102,418	\$ 12,540	\$ 9,244	\$ 714,356
United States		11	321,669	96,228	78,277	14,869	12,491	523,534	321,709	93,217	80,462	14,148	11,278	520,814
Other International														
Europe		12	42,309	2,410	59,569	15,731	772	120,791	42,928	2,900	60,758	14,082	741	121,409
Other		13	23,310	665	11,941	3,256	348	39,520	19,442	639	15,711	3,178	182	39,152
		14	65,619	3,075	71,510	18,987	1,120	160,311	62,370	3,539	76,469	17,260	923	160,561
Total		15	\$ 862,356	\$ 227,857	\$ 255,754	\$ 50,151	\$ 23,616	\$ 1,419,734	\$ 848,135	\$ 222,854	\$ 259,349	\$ 43,948	\$ 21,445	\$ 1,395,731
By Residual Contractual Maturity														
Within 1 year		16	\$ 278,652	\$ 157,706	\$ 255,754	\$ 24,528	\$ 9,862	\$ 726,502	\$ 276,203	\$ 155,494	\$ 259,349	\$ 19,808	\$ 10,059	\$ 720,913
Over 1 year to 5 years		17	398,292	67,372	–	17,671	12,856	496,191	398,881	64,869	–	16,996	10,463	491,209
Over 5 years		18	185,412	2,779	–	7,952	898	197,041	173,051	2,491	–	7,144	923	183,609
Total		19	\$ 862,356	\$ 227,857	\$ 255,754	\$ 50,151	\$ 23,616	\$ 1,419,734	\$ 848,135	\$ 222,854	\$ 259,349	\$ 43,948	\$ 21,445	\$ 1,395,731
Non-Retail Exposures by Industry Sector														
Real estate														
Residential		20	\$ 24,953	\$ 2,676	\$ 1	\$ 27	\$ 1,510	\$ 29,167	\$ 24,487	\$ 2,668	\$ 1	\$ 29	\$ 1,548	\$ 28,733
Non-residential		21	37,395	5,055	21	197	423	43,091	36,888	4,823	16	221	372	42,320
Total real-estate		22	62,348	7,731	22	224	1,933	72,258	61,375	7,491	17	250	1,920	71,053
Agriculture		23	6,902	351	2	19	21	7,295	6,710	342	3	15	21	7,091
Automotive		24	11,824	4,865	8	758	94	17,549	11,360	5,353	2	661	90	17,466
Financial		25	40,526	12,214	217,998	27,685	1,626	300,049	38,293	11,624	217,480	23,503	1,537	292,437
Food, beverage, and tobacco		26	5,635	3,334	–	435	506	9,910	5,653	3,283	–	336	523	9,795
Forestry		27	1,234	852	–	12	46	2,144	1,232	798	–	8	49	2,087
Government, public sector entities, and education		28	201,188	4,268	24,164	17,338	6,443	253,401	201,063	3,653	29,279	15,588	5,077	254,660
Health and social services		29	18,010	1,956	312	52	2,075	22,405	17,439	1,570	316	58	1,979	21,362
Industrial construction and trade contractors		30	4,163	1,478	63	5	540	6,249	4,052	1,498	44	5	778	6,377
Metals and mining		31	3,988	3,363	102	279	969	8,701	3,865	3,248	98	313	1,003	8,527
Pipelines, oil, and gas		32	6,914	11,490	85	1,084	2,115	21,688	6,693	11,368	27	1,231	1,662	20,981
Power and utilities		33	5,977	7,858	7	291	3,693	17,826	5,725	7,401	24	289	3,493	16,932
Professional and other services		34	14,115	5,523	183	88	810	20,719	14,720	5,237	147	95	822	21,021
Retail sector		35	6,882	2,926	293	40	260	10,401	6,142	2,962	307	35	232	9,678
Sundry manufacturing and wholesale		36	10,160	6,678	21	354	643	17,856	9,749	6,481	14	294	603	17,141
Telecommunications, cable, and media		37	6,302	7,622	–	700	424	15,048	6,776	8,290	–	658	425	16,149
Transportation		38	11,459	2,181	66	508	1,107	15,321	11,467	2,073	64	331	1,017	14,952
Other		39	5,308	2,350	12,428	279	272	20,637	4,900	2,251	11,527	278	171	19,127
Total		40	\$ 422,935	\$ 87,040	\$ 255,754	\$ 50,151	\$ 23,577	\$ 839,457	\$ 417,214	\$ 84,923	\$ 259,349	\$ 43,948	\$ 21,402	\$ 826,836

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 #	2018 Q2					
By Counterparty Type			Drawn	Undrawn ²	Repo-style transactions	OTC derivatives	Other off- balance sheet	Total
Retail								
Residential secured		1	\$ 308,413	\$ 49,886	\$ —	\$ —	\$ —	358,299
Qualifying revolving retail		2	23,637	68,246	—	—	—	91,883
Other retail		3	89,553	6,476	—	—	43	96,072
		4	421,603	124,608	—	—	43	546,254
Non-retail								
Corporate		5	200,108	76,987	159,375	11,514	15,783	463,767
Sovereign		6	190,424	1,456	29,721	15,100	1,696	238,397
Bank		7	26,912	3,006	62,912	19,720	3,638	116,188
		8	417,444	81,449	252,008	46,334	21,117	818,352
Total		9	\$ 839,047	\$ 206,057	\$ 252,008	\$ 46,334	\$ 21,160	\$ 1,364,606
By Country of Risk								
Canada		10	\$ 461,084	\$ 127,685	\$ 91,852	\$ 13,233	\$ 9,038	\$ 702,892
United States		11	315,556	74,958	81,751	13,520	11,136	496,921
Other International								
Europe		12	42,937	2,804	59,444	15,879	619	121,683
Other		13	19,470	610	18,961	3,702	367	43,110
		14	62,407	3,414	78,405	19,581	986	164,793
Total		15	\$ 839,047	\$ 206,057	\$ 252,008	\$ 46,334	\$ 21,160	\$ 1,364,606
By Residual Contractual Maturity								
Within 1 year		16	\$ 271,086	\$ 140,912	\$ 252,008	\$ 22,106	\$ 9,758	\$ 695,870
Over 1 year to 5 years		17	394,728	62,814	—	16,823	10,508	484,873
Over 5 years		18	173,233	2,331	—	7,405	894	183,863
Total		19	\$ 839,047	\$ 206,057	\$ 252,008	\$ 46,334	\$ 21,160	\$ 1,364,606
Non-Retail Exposures by Industry Sector								
Real estate								
Residential		20	\$ 23,833	\$ 2,648	\$ 1	\$ 29	\$ 1,556	\$ 28,067
Non-residential		21	36,437	4,967	13	227	390	42,034
Total real-estate		22	60,270	7,615	14	256	1,946	70,101
Agriculture		23	6,584	226	7	12	23	6,852
Automotive		24	11,212	5,928	13	689	89	17,931
Financial		25	38,649	11,366	210,795	25,576	1,514	287,900
Food, beverage, and tobacco		26	5,239	3,099	—	367	491	9,196
Forestry		27	1,252	843	—	7	43	2,145
Government, public sector entities, and education		28	203,326	3,485	30,324	16,045	4,978	258,158
Health and social services		29	17,417	1,232	327	60	1,902	20,938
Industrial construction and trade contractors		30	4,032	1,395	58	5	762	6,252
Metals and mining		31	3,653	3,419	71	272	951	8,366
Pipelines, oil, and gas		32	6,551	11,057	85	1,085	1,760	20,538
Power and utilities		33	4,766	7,203	22	266	3,538	15,795
Professional and other services		34	14,366	4,735	154	82	772	20,109
Retail sector		35	6,128	2,205	412	43	242	9,030
Sundry manufacturing and wholesale		36	9,593	6,642	44	345	619	17,243
Telecommunications, cable, and media		37	8,033	6,947	—	618	294	15,892
Transportation		38	11,749	2,083	41	284	1,066	15,223
Other		39	4,624	1,969	9,641	322	127	16,683
Total		40	\$ 417,444	\$ 81,449	\$ 252,008	\$ 46,334	\$ 21,117	\$ 818,352

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 #	2019 Q2						2019 Q1							
			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	\$ 105,530	\$ 60,357	\$ 105,530	\$ 29,880	\$ 124,579	92.00	%	\$ 102,499	\$ 59,982	\$ 102,499	\$ 29,777	\$ 121,597	91.93	%
Sovereign		2	96,952	320	96,952	161	7,506	7.73		90,941	352	90,941	176	7,284	7.99	
Bank		3	13,040	8,338	13,040	5,675	3,743	20.00		13,545	8,361	13,545	5,699	3,849	20.00	
Retail residential mortgages		4	3,166	762	3,166	346	1,793	51.05		2,920	768	2,920	354	1,671	51.04	
Other retail		5	7,640	45,562	7,640	177	5,508	70.46		12,728	58,268	12,728	165	9,385	72.79	
Equity		6	4,548	2,811	4,548	1,406	4,078	68.49		1,799	1,491	1,799	745	512	20.13	
Other assets ⁵		7	19,395	—	19,395	—	16,514	85.15		23,734	—	23,734	—	18,020	75.92	
Total		8	\$ 250,271	\$ 118,150	\$ 250,271	\$ 37,645	\$ 163,721	56.86	%	\$ 248,166	\$ 129,222	\$ 248,166	\$ 36,916	\$ 162,318	56.94	%
2018 Q4																
			Exposures before CCF and CRM		Exposures post-CCF and CRM		RWA ³	RWA density ⁴					RWA ³	RWA density ⁴		
			On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount										
Asset classes																
Corporate		9	\$ 100,373	\$ 60,366	\$ 100,373	\$ 30,189	\$ 120,444	92.25	%							
Sovereign		10	95,199	423	95,199	212	7,733	8.10								
Bank		11	13,367	6,229	13,367	4,648	3,603	20.00								
Retail residential mortgages		12	2,716	818	2,716	375	1,630	52.73								
Other retail		13	12,576	60,932	12,576	170	9,330	73.20								
Equity		14	2,001	1,498	2,001	749	727	26.44								
Other assets ⁵		15	22,203	—	22,203	—	17,265	77.76								
Total		16	\$ 248,435	\$ 130,266	\$ 248,435	\$ 36,343	\$ 160,732	56.44	%							

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 #	2019 Q2								2019 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		1	\$ 9,260	\$ 2,283	\$ –	\$ –	\$ 123,358	\$ 509	\$ –	\$ 135,410	\$ 9,016	\$ 2,287	\$ –	\$ –	\$ 120,637	\$ 335	\$ –	\$ 132,275
Sovereign		2	59,582	37,531	–	–	–	–	–	97,113	54,695	36,422	–	–	–	–	–	91,117
Bank		3	–	18,715	–	–	–	–	–	18,715	–	19,245	–	–	–	–	–	19,245
Retail residential mortgages		4	–	9	2,104	1,381	18	–	–	3,512	–	1	1,969	1,286	17	–	–	3,273
Other retail		5	467	241	–	6,939	–	170	–	7,817	423	225	–	12,036	–	209	–	12,893
Equity		6	1,974	166	–	–	3,814	–	–	5,954	1,936	158	–	–	451	–	–	2,545
Other assets ²		7	5,383	–	–	–	13,879	–	133	19,395	7,541	–	–	–	16,117	–	76	23,734
Total		8	\$ 76,666	\$ 58,945	\$ 2,104	\$ 8,320	\$ 141,069	\$ 679	\$ 133	\$ 287,916	\$ 73,611	\$ 58,338	\$ 1,969	\$ 13,322	\$ 137,222	\$ 544	\$ 76	\$ 285,082
			2018 Q4															
			Risk-weight							Total credit exposures amount (post-CCF and post-CRM)								
			0%	20%	35%	75%	100%	150%	Other									
Asset classes																		
Corporate		9	\$ 8,966	\$ 1,552	\$ –	\$ –	\$ 119,861	\$ 183	\$ –	\$ 130,562								
Sovereign		10	56,747	38,664	–	–	–	–	–	95,411								
Bank		11	–	18,015	–	–	–	–	–	18,015								
Retail residential mortgages		12	–	10	1,719	1,343	19	–	–	3,091								
Other retail		13	427	212	–	11,830	–	277	–	12,746								
Equity		14	1,940	155	–	–	655	–	–	2,750								
Other assets ²		15	6,715	–	–	–	15,414	–	74	22,203								
Total		16	\$ 74,795	\$ 58,608	\$ 1,719	\$ 13,173	\$ 135,949	\$ 460	\$ 74	\$ 284,778								

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 #	2019 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	
1	0.00 to <0.15	% AAA to BBB	\$ 22,746	\$ 64,331	70.04	% \$ 78,459	0.06	% 5,187	38.19	% 2.6	\$ 13,806	17.60	% \$ 19		
2	0.15 to <0.25	BBB- to BB+	30,358	20,189	69.20	% 38,240	0.18	% 5,863	26.75	2.9	11,131	29.11	18		
3	0.25 to <0.50	BB to BB-	26,901	9,479	68.58	% 30,139	0.37	% 8,554	28.85	2.5	12,665	42.02	32		
4	0.50 to <0.75	B+	7,635	2,808	70.09	% 9,134	0.72	% 2,442	32.03	2.2	5,502	60.24	21		
5	0.75 to <2.50	B To B-	18,658	4,018	69.96	% 20,821	1.78	% 29,742	33.21	2.3	17,608	84.57	122		
6	2.50 to <10.00 ⁷	n/a	n/a	n/a	n/a	% n/a	n/a	% n/a	n/a	n/a	n/a	n/a	n/a		
7	10.00 to <100.00	CCC+ to CC and below	2,463	846	61.26	% 2,800	19.03	% 927	34.64	2.0	4,935	176.25	189		
8	100.00 (Default)	Default	251	26	32.08	% 253	100.00	% 340	38.72	1.4	642	253.75	62		
9	Total		\$ 109,012	\$ 101,697	69.65	% \$ 179,846	0.81	% 40,882	33.25	% 2.6	\$ 66,289	36.86	% \$ 463	\$ 68	
2019 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	
10	0.00 to <0.15	% AAA to BBB	\$ 22,608	\$ 59,645	70.38	% \$ 75,894	0.06	% 5,198	38.42	% 2.6	\$ 13,227	17.43	% \$ 16		
11	0.15 to <0.25	BBB- to BB+	30,548	20,652	69.84	% 38,417	0.18	% 5,809	26.29	2.9	11,127	28.96	18		
12	0.25 to <0.50	BB to BB-	25,435	9,677	68.52	% 28,749	0.38	% 8,525	29.83	2.6	12,625	43.91	32		
13	0.50 to <0.75	B+	7,720	2,768	69.32	% 9,093	0.72	% 2,425	31.17	2.3	5,385	59.22	20		
14	0.75 to <2.50	B To B-	18,010	4,119	70.48	% 20,231	1.81	% 29,343	32.14	2.3	16,571	81.91	116		
15	2.50 to <10.00 ⁷	n/a	n/a	n/a	n/a	% n/a	n/a	% n/a	n/a	n/a	n/a	n/a	n/a		
16	10.00 to <100.00	CCC+ to CC and below	1,946	740	59.52	% 2,187	18.59	% 867	36.97	1.8	4,078	186.47	156		
17	100.00 (Default)	Default	281	29	30.50	% 281	100.00	% 302	31.43	1.4	635	225.98	51		
18	Total		\$ 106,548	\$ 97,630	69.96	% \$ 174,852	0.77	% 40,557	33.21	% 2.6	\$ 63,648	36.40	% \$ 409	\$ 60	
2018 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	
19	0.00 to <0.15	% AAA to BBB	\$ 24,005	\$ 62,497	70.15	% \$ 79,278	0.06	% 5,088	38.76	% 2.7	\$ 14,559	18.36	% \$ 18		
20	0.15 to <0.25	BBB- to BB+	29,869	18,157	71.24	% 36,253	0.18	% 5,745	25.59	2.9	10,046	27.71	16		
21	0.25 to <0.50	BB to BB-	25,063	9,425	69.29	% 28,258	0.38	% 8,451	29.35	2.7	12,402	43.89	31		
22	0.50 to <0.75	B+	7,076	2,596	69.75	% 8,260	0.72	% 2,387	30.61	2.3	4,802	58.14	18		
23	0.75 to <2.50	B To B-	18,229	4,098	71.45	% 20,451	1.83	% 29,054	31.63	2.3	16,553	80.94	116		
24	2.50 to <10.00 ⁷	n/a	n/a	n/a	n/a	% n/a	n/a	% n/a	n/a	n/a	n/a	n/a	n/a		
25	10.00 to <100.00	CCC+ to CC and below	1,906	716	60.36	% 2,125	18.74	% 862	39.80	1.9	4,212	198.21	159		
26	100.00 (Default)	Default	244	33	34.79	% 254	100.00	% 276	31.84	1.5	555	218.50	56		
27	Total		\$ 106,392	\$ 97,522	70.23	% \$ 174,879	0.75	% 40,170	33.29	% 2.6	\$ 63,129	36.10	% \$ 414	\$ 61	

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 No internal borrower risk rating (BRR) mapped to the prescribed PD range.

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

(\$ millions, except
as noted)
As at

LINE #	2019 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	
1	0.00 to <0.15	% AAA to BBB	\$ 89,376	\$ 4,716	82.78	% \$ 183,366 ⁷	0.01	145	11.53	1.7	\$ 588	0.32	% \$ 1		
2	0.15 to <0.25	BBB- to BB+	22	—	—	22	0.22	2	13.00	1.0	2	9.09	—		
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-	—	—	—	—	2.35	95	34.00	2.5	—	—	—		
6	2.50 to <10.00 ⁸	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
7	10.00 to <100.00	CCC+ to CC and below	—	—	—	—	—	—	—	—	—	—	—		
8	100.00 (Default)	Default	—	—	—	—	—	—	—	—	—	—	—		
9	Total		\$ 89,398	\$ 4,716	82.78	% \$ 183,388	0.01	196	11.53	1.7	\$ 590	0.32	% \$ 1	\$ —	
2019 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	
10	0.00 to <0.15	% AAA to BBB	\$ 95,550	\$ 4,673	82.22	% \$ 190,583 ⁷	0.01	167	12.04	1.6	\$ 553	0.29	% \$ —		
11	0.15 to <0.25	BBB- to BB+	262	—	—	262	0.16	7	2.66	3.7	7	2.67	—		
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-	—	—	—	—	2.35	91	34.00	2.5	—	—	—		
15	2.50 to <10.00 ⁸	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
16	10.00 to <100.00	CCC+ to CC and below	—	—	—	—	—	—	—	—	—	—	—		
17	100.00 (Default)	Default	—	—	—	—	—	—	—	—	—	—	—		
18	Total		\$ 95,812	\$ 4,673	82.22	% \$ 190,845	0.01	218	12.03	1.6	\$ 560	0.29	% \$ —	\$ —	
2018 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	
19	0.00 to <0.15	% AAA to BBB	\$ 92,425	\$ 4,963	80.53	% \$ 189,744 ⁷	0.01	165	12.37	1.7	\$ 556	0.29	% \$ 1		
20	0.15 to <0.25	BBB- to BB+	225	—	—	225	0.16	4	2.74	4.5	7	3.11	—		
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-	—	—	—	—	2.35	92	34.00	2.5	—	—	—		
24	2.50 to <10.00 ⁸	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
25	10.00 to <100.00	CCC+ to CC and below	—	—	—	—	—	—	—	—	—	—	—		
26	100.00 (Default)	Default	—	—	—	—	—	—	—	—	—	—	—		
27	Total		\$ 92,650	\$ 4,963	80.53	% \$ 189,969	0.01	215	12.36	1.7	\$ 563	0.30	% \$ 1	\$ —	

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.

⁸ No internal BRR mapped to the prescribed PD range.

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

(\$ millions, except
as noted)
As at

LINE #	2019 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	
1	0.00 to <0.15	% AAA to BBB	\$ 10,894	\$ 4,693	75.93	% \$ 14,914	0.04	% 486	34.77	% 1.5	\$ 1,548	10.38	% \$ 2		
2	0.15 to <0.25	BBB- to BB+	299	738	63.03	680	0.16	33	11.04	2.2	64	9.41	—		
3	0.25 to <0.50	BB to BB-	523	5	97.00	160	0.47	17	14.01	1.0	34	21.25	—		
4	0.50 to <0.75	B+	30	8	67.34	32	0.72	11	84.46	2.8	55	171.88	—		
5	0.75 to <2.50	B To B-	42	8	23.59	43	2.35	392	10.94	4.7	16	37.21	—		
6	2.50 to <10.00 ⁷	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
7	10.00 to <100.00	CCC+ to CC and below	1	—	—	1	19.81	1	55.00	0.3	3	300.00	—		
8	100.00 (Default)	Default	—	—	—	—	—	1	—	—	—	—	—		
9	Total		\$ 11,789	\$ 5,452	74.11	% \$ 15,830	0.06	% 650	33.58	% 1.5	\$ 1,720	10.87	% \$ 2	\$ —	
2019 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	
10	0.00 to <0.15	% AAA to BBB	\$ 12,832	\$ 4,407	74.30	% \$ 16,545	0.05	% 512	26.53	% 1.3	\$ 1,520	9.19	% \$ 2		
11	0.15 to <0.25	BBB- to BB+	366	597	63.93	655	0.16	35	9.51	2.4	62	9.47	—		
12	0.25 to <0.50	BB to BB-	488	5	100.00	151	0.46	18	14.21	1.0	32	21.19	—		
13	0.50 to <0.75	B+	5	—	50.00	3	0.72	11	17.82	1.8	1	33.33	—		
14	0.75 to <2.50	B To B-	118	1	64.72	116	2.35	387	6.69	5.0	27	23.28	—		
15	2.50 to <10.00 ⁷	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
16	10.00 to <100.00	CCC+ to CC and below	1	—	—	1	19.81	1	55.00	0.2	2	200.00	—		
17	100.00 (Default)	Default	—	—	—	—	—	1	—	—	—	—	—		
18	Total		\$ 13,810	\$ 5,010	73.09	% \$ 17,471	0.07	% 675	25.65	% 1.4	\$ 1,644	9.41	% \$ 2	\$ —	
2018 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	
19	0.00 to <0.15	% AAA to BBB	\$ 13,691	\$ 4,206	72.26	% \$ 17,321	0.05	% 511	27.71	% 2.2	\$ 1,597	9.22	% \$ 3		
20	0.15 to <0.25	BBB- to BB+	574	83	44.25	440	0.17	42	14.22	2.1	58	13.18	—		
21	0.25 to <0.50	BB to BB-	568	7	93.78	157	0.46	19	14.36	1.0	33	21.02	—		
22	0.50 to <0.75	B+	6	1	36.77	3	0.72	8	16.03	2.2	1	33.33	—		
23	0.75 to <2.50	B To B-	72	1	74.72	73	2.35	388	4.05	4.9	10	13.70	—		
24	2.50 to <10.00 ⁷	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
25	10.00 to <100.00	CCC+ to CC and below	1	—	—	1	19.81	1	55.00	0.3	2	200.00	—		
26	100.00 (Default)	Default	—	—	—	—	—	1	—	—	—	—	—		
27	Total		\$ 14,912	\$ 4,298	71.74	% \$ 17,995	0.06	% 683	27.17	% 2.2	\$ 1,701	9.45	% \$ 3	\$ —	

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 No internal BRR mapped to the prescribed PD range.

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

(\$ millions, except as noted)

As at

LINE
#

2019

Q2

		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
PD scale ¹	%												
Canadian Retail Insured ^{7,8}													
1	0.00 to <0.15	\$ 56,247	\$ 19,410	50.94	\$ 6,963	0.07	407,415	6.98		\$ 91	1.31	\$ –	
2	0.15 to <0.25	11,477	561	45.21	2,315	0.19	60,814	8.13		78	3.37	–	
3	0.25 to <0.50	9,168	257	44.11	1,864	0.32	60,700	8.46		94	5.04	1	
4	0.50 to <0.75	6,210	88	43.75	1,289	0.51	21,290	8.68		94	7.29	1	
5	0.75 to <2.50	7,803	85	46.96	1,277	1.25	32,431	7.95		150	11.75	1	
6	2.50 to <10.00	2,158	8	56.62	378	5.96	13,031	6.60		92	24.34	1	
7	10.00 to <100.00	696	1	66.50	98	26.21	4,220	5.18		29	29.59	1	
8	100.00 (Default)	195	–	–	24	100.00	1,103	6.61		21	87.50	–	
9	Total	93,954	20,410	50.65	14,208	0.77	601,004	7.58		649	4.57	5	10
Canadian Retail Uninsured ⁷													
10	0.00 to <0.15	115,095	60,606	50.09	145,448	0.06	668,228	20.88		4,836	3.32	17	
11	0.15 to <0.25	28,994	3,256	44.53	30,444	0.19	114,729	24.29		3,045	10.00	14	
12	0.25 to <0.50	17,860	1,568	43.51	18,543	0.31	90,209	26.13		2,870	15.48	15	
13	0.50 to <0.75	10,870	612	42.68	11,131	0.51	30,045	26.99		2,531	22.74	15	
14	0.75 to <2.50	11,743	419	44.25	11,929	1.24	39,291	26.15		4,617	38.70	38	
15	2.50 to <10.00	2,478	29	54.73	2,494	5.58	12,140	21.85		1,936	77.63	30	
16	10.00 to <100.00	714	3	59.81	716	29.64	3,637	17.25		667	93.16	38	
17	100.00 (Default)	189	–	–	189	100.00	972	21.01		369	195.24	12	
18	Total	187,943	66,493	49.56	220,894	0.43	959,251	22.39		20,871	9.45	179	22
U.S. Retail Uninsured ⁷													
19	0.00 to <0.15	20,816	12,371	68.47	29,286	0.06	117,373	31.53		1,468	5.01	5	
20	0.15 to <0.25	5,931	529	64.85	6,274	0.19	28,696	30.93		805	12.83	4	
21	0.25 to <0.50	4,365	378	61.54	4,597	0.32	25,030	32.42		888	19.32	5	
22	0.50 to <0.75	3,132	231	60.81	3,272	0.52	10,527	35.86		995	30.41	6	
23	0.75 to <2.50	5,186	367	61.07	5,410	1.31	22,235	36.77		3,099	57.28	26	
24	2.50 to <10.00	1,166	81	28.96	1,189	5.67	8,133	36.60		1,566	131.71	25	
25	10.00 to <100.00	436	21	19.81	440	24.85	3,852	37.74		932	211.82	42	
26	100.00 (Default)	745	–	–	745	100.00	4,201	29.86		715	95.97	168	
27	Total	41,777	13,978	67.52	51,213	2.06	220,047	32.51		10,468	20.44	281	96
Total residential secured		\$ 323,674	\$ 100,881	52.27	\$ 286,315	0.72	1,780,302	23.06		\$ 31,988	11.17	\$ 465	\$ 128

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.

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

(\$ millions, except as noted)
As at

LINE
#

2019
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
Canadian Retail Insured ^{7,8}	1	0.00 to <0.15 %	\$ 58,331	\$ 19,621	46.56 %	\$ 7,206	0.07 %	419,456	6.94 %		\$ 95	1.32 %	\$ –	
	2	0.15 to <0.25	10,987	408	42.20	2,153	0.20	58,417	8.06		73	3.39	–	
	3	0.25 to <0.50	9,143	256	45.47	1,986	0.32	61,306	8.43		100	5.04	1	
	4	0.50 to <0.75	6,337	119	51.11	1,201	0.52	21,548	8.48		86	7.16	1	
	5	0.75 to <2.50	8,088	65	63.59	1,312	1.28	33,683	7.88		156	11.89	1	
	6	2.50 to <10.00	2,230	6	86.11	371	6.18	13,641	6.56		91	24.53	1	
	7	10.00 to <100.00	719	2	77.13	111	24.91	4,372	5.20		32	28.83	1	
	8	100.00 (Default)	188	–	–	25	100.00	1,092	6.20		20	80.00	–	
	9	Total	96,023	20,477	46.56	14,365	0.79	613,515	7.51		653	4.55	5	10
Canadian Retail Uninsured ⁷	10	0.00 to <0.15	119,452	60,857	50.42	150,138	0.05	684,972	22.93		5,143	3.43	18	
	11	0.15 to <0.25	24,034	1,748	55.57	25,005	0.19	95,234	25.22		2,593	10.37	12	
	12	0.25 to <0.50	17,178	2,156	71.10	18,710	0.31	86,097	29.28		3,176	16.97	17	
	13	0.50 to <0.75	9,198	495	62.81	9,509	0.52	26,495	27.57		2,216	23.30	14	
	14	0.75 to <2.50	10,780	307	72.45	11,003	1.25	38,320	26.99		4,453	40.47	37	
	15	2.50 to <10.00	2,349	21	83.27	2,366	5.59	12,576	22.81		1,918	81.07	29	
	16	10.00 to <100.00	690	3	78.30	693	28.84	3,505	17.03		644	92.93	36	
	17	100.00 (Default)	181	–	–	181	100.00	900	18.70		322	177.90	10	
	18	Total	183,862	65,587	51.45	217,605	0.41	948,099	24.12		20,465	9.40	173	23
U.S. Retail Uninsured ⁷	19	0.00 to <0.15	15,809	10,953	67.74	23,229	0.06	104,554	22.84		795	3.42	3	
	20	0.15 to <0.25	5,769	542	55.12	6,068	0.19	21,462	18.58		469	7.73	2	
	21	0.25 to <0.50	5,364	376	51.52	5,558	0.32	27,453	21.16		704	12.67	4	
	22	0.50 to <0.75	3,918	294	48.40	4,060	0.52	16,451	23.50		814	20.05	5	
	23	0.75 to <2.50	6,899	1,123	50.72	7,468	1.36	29,190	28.25		3,455	46.26	30	
	24	2.50 to <10.00	1,868	345	47.10	2,031	5.72	13,394	35.93		2,625	129.25	41	
	25	10.00 to <100.00	579	73	46.81	613	23.46	5,671	34.73		1,197	195.27	50	
	26	100.00 (Default)	741	–	–	741	100.00	4,268	27.81		401	54.12	176	
	27	Total	40,947	13,706	64.35	49,768	2.35	222,443	23.75		10,460	21.02	311	96
Total residential secured	28		\$ 320,832	\$ 99,770	52.22 %	\$ 281,738	0.75 %	1,784,057	22.55 %		\$ 31,578	11.21 %	\$ 489	\$ 129

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.

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

(\$ millions, except as noted)
As at

LINE #	2018 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	% \$	60,013 \$	19,628	46.08 %	\$ 7,260	0.07 %	429,856	6.91 %		\$ 94	1.29 % \$	– \$												
2	0.15 to <0.25		10,966	404	40.30	2,301	0.19	59,106	8.02		76	3.30	–												
3	0.25 to <0.50		9,801	256	44.55	2,085	0.32	63,202	8.44		105	5.04	1												
4	0.50 to <0.75		6,192	121	48.28	1,120	0.51	23,422	8.23		77	6.88	–												
5	0.75 to <2.50		8,551	57	61.95	1,431	1.21	33,693	7.90		164	11.46	1												
6	2.50 to <10.00		2,197	4	85.72	366	6.25	13,470	6.49		89	24.32	1												
7	10.00 to <100.00		683	1	83.83	103	25.16	4,264	5.03		29	28.16	1												
8	100.00 (Default)		194	–	–	27	100.00	1,124	6.21		22	81.48	–												
9	Total		98,597	20,471	46.01	14,693	0.78	628,137	7.47		656	4.46	4	7											
10	0.00 to <0.15		117,313	59,982	50.42	147,555	0.05	677,733	23.01		5,141	3.48	18												
11	0.15 to <0.25		22,812	1,686	100.00	24,498	0.19	91,489	24.54		2,464	10.06	11												
12	0.25 to <0.50		17,518	1,743	68.19	18,706	0.31	85,807	28.13		3,104	16.59	16												
13	0.50 to <0.75		8,908	472	64.52	9,213	0.52	25,859	27.91		2,173	23.59	13												
14	0.75 to <2.50		10,530	273	72.52	10,728	1.24	38,054	27.41		4,369	40.73	36												
15	2.50 to <10.00		2,178	11	92.34	2,188	5.59	11,841	22.23		1,727	78.93	27												
16	10.00 to <100.00		636	1	90.19	637	29.15	3,321	17.33		596	93.56	34												
17	100.00 (Default)		168	–	–	168	100.00	898	19.60		306	182.14	10												
18	Total		180,063	64,168	52.41	213,693	0.39	935,002	24.04		19,880	9.30	165	22											
19	0.00 to <0.15		15,009	10,850	67.63	22,347	0.06	102,531	23.42		788	3.53	3												
20	0.15 to <0.25		5,790	556	55.66	6,100	0.19	21,658	19.10		485	7.95	2												
21	0.25 to <0.50		5,350	383	52.21	5,550	0.32	28,118	20.92		695	12.52	4												
22	0.50 to <0.75		4,062	294	48.48	4,205	0.52	15,909	23.41		837	19.90	5												
23	0.75 to <2.50		7,452	1,045	51.90	7,995	1.31	32,024	27.84		3,585	44.84	31												
24	2.50 to <10.00		1,928	351	45.83	2,089	5.81	13,501	35.73		2,714	129.92	43												
25	10.00 to <100.00		635	80	47.61	673	23.14	5,868	36.17		1,367	203.12	56												
26	100.00 (Default)		782	–	–	782	100.00	4,297	27.71		422	53.96	185												
27	Total		41,008	13,559	64.40	49,741	2.47	223,906	24.08		10,893	21.90	329	106											
28		\$	319,668 \$	98,198	52.73 %	\$ 278,127	0.76 %	1,787,045	22.50 %	\$	31,429	11.30 % \$	498 \$	135											

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.

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

(\$ millions, except as noted)
As at

LINE
#

2019
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	% \$ 4,614	\$ 100,232	63.05	% \$ 67,809	0.05	8,000,221	88.12	%	\$ 1,945	2.87	% \$ 28	
2	0.15 to <0.25	1,770	12,360	62.08	9,443	0.19	1,249,632	89.01		925	9.80	16	
3	0.25 to <0.50	2,251	10,706	61.23	8,807	0.33	1,457,413	89.04		1,325	15.04	26	
4	0.50 to <0.75	2,921	6,733	65.12	7,305	0.52	848,765	89.13		1,600	21.90	34	
5	0.75 to <2.50	12,179	14,744	62.28	21,361	1.50	2,587,773	89.20		10,300	48.22	286	
6	2.50 to <10.00	9,541	3,823	74.28	12,380	5.63	2,008,841	88.85		14,950	120.76	618	
7	10.00 to <100.00	2,611	515	87.01	3,060	26.01	692,926	84.65		6,952	227.19	681	
8	100.00 (Default)	174	–	–	174	100.00	64,938	74.93		57	32.76	126	
9	Total	\$ 36,061	\$ 149,113	63.23	% \$ 130,339	1.61	% 16,910,509	88.45	%	\$ 38,054	29.20	% \$ 1,815	\$ 326

2019
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
10	0.00 to <0.15	% \$ 4,586	\$ 92,446	61.69	% \$ 61,615	0.04	7,386,864	88.09	%	\$ 1,705	2.77	% \$ 24	
11	0.15 to <0.25	1,528	9,858	60.50	7,492	0.19	997,367	89.58		739	9.86	13	
12	0.25 to <0.50	1,933	8,860	59.11	7,170	0.33	1,262,020	89.65		1,093	15.24	21	
13	0.50 to <0.75	2,407	5,416	62.44	5,789	0.53	729,254	89.59		1,277	22.06	27	
14	0.75 to <2.50	10,035	12,475	59.93	17,510	1.50	2,373,807	89.62		8,468	48.36	235	
15	2.50 to <10.00	7,631	3,282	73.18	10,034	5.60	1,684,012	89.37		12,155	121.14	502	
16	10.00 to <100.00	2,182	426	84.92	2,544	27.28	607,856	85.31		5,839	229.52	600	
17	100.00 (Default)	106	–	–	106	100.00	55,473	74.41		26	24.53	77	
18	Total	\$ 30,408	\$ 132,763	61.65	% \$ 112,260	1.53	% 15,096,653	88.65	%	\$ 31,302	27.88	% \$ 1,499	\$ 302

2018
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
19	0.00 to <0.15	% \$ 4,777	\$ 91,661	62.48	% \$ 62,045	0.04	7,549,790	88.06	%	\$ 1,716	2.77	% \$ 24	
20	0.15 to <0.25	1,547	9,744	61.05	7,495	0.19	991,944	89.52		738	9.85	13	
21	0.25 to <0.50	1,946	7,630	61.60	6,646	0.32	1,179,209	89.55		983	14.79	19	
22	0.50 to <0.75	2,413	6,365	59.96	6,230	0.52	697,296	89.53		1,370	21.99	29	
23	0.75 to <2.50	10,022	12,262	60.04	17,384	1.49	2,098,211	89.65		8,403	48.34	233	
24	2.50 to <10.00	7,616	3,262	72.85	9,992	5.60	1,696,735	89.40		12,110	121.20	500	
25	10.00 to <100.00	2,118	433	84.98	2,486	26.71	618,537	85.20		5,688	228.80	572	
26	100.00 (Default)	110	–	–	110	100.00	51,104	72.69		25	22.73	78	
27	Total	\$ 30,549	\$ 131,357	62.30	% \$ 112,388	1.50	% 14,882,826	88.61	%	\$ 31,033	27.61	% \$ 1,468	\$ 273

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
#

2019
Q2

	PD scale ¹	Original on-balance sheet gross exposure ²	Off-balance sheet exposures pre-CCF	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	% \$ 9,036	\$ 4,346	61.33 %	\$ 11,701	0.08 %	743,551	45.17 %		\$ 1,120	9.57 %	\$ 4	
2	0.15 to <0.25	5,555	2,516	42.37	6,621	0.20	355,487	46.12		1,295	19.56	6	
3	0.25 to <0.50	11,692	1,874	60.66	12,829	0.35	499,765	39.15		3,073	23.95	17	
4	0.50 to <0.75	6,433	705	75.80	6,968	0.53	261,516	48.03		2,631	37.76	18	
5	0.75 to <2.50	23,245	1,729	61.27	24,303	1.53	802,568	50.34		14,933	61.45	188	
6	2.50 to <10.00	13,990	484	52.58	14,245	5.69	615,049	50.88		11,549	81.07	412	
7	10.00 to <100.00	4,256	64	53.19	4,290	25.78	183,267	49.10		4,817	112.28	542	
8	100.00 (Default)	427	4	100.00	431	100.00	13,538	48.70		265	61.48	187	
9	Total	\$ 74,634	\$ 11,722	57.62 %	\$ 81,388	3.47 %	3,474,741	47.31 %		\$ 39,683	48.76 %	\$ 1,374	\$ 110

2019
Q1

	PD scale ¹	Original on-balance sheet gross exposure ²	Off-balance sheet exposures pre-CCF	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	% \$ 9,491	\$ 4,144	64.57 %	\$ 12,169	0.08 %	732,709	44.42 %		\$ 1,133	9.31 %	\$ 4	
11	0.15 to <0.25	5,684	2,514	42.01	6,740	0.20	358,071	45.37		1,296	19.23	6	
12	0.25 to <0.50	11,768	1,821	60.73	12,873	0.35	504,919	38.62		3,041	23.62	17	
13	0.50 to <0.75	6,415	689	76.49	6,942	0.53	260,097	47.44		2,589	37.29	17	
14	0.75 to <2.50	22,462	1,666	61.14	23,479	1.51	847,490	49.83		14,244	60.67	178	
15	2.50 to <10.00	12,913	470	52.23	13,159	5.67	534,544	50.60		10,603	80.58	377	
16	10.00 to <100.00	3,941	66	52.91	3,976	26.65	180,305	48.35		4,396	110.56	511	
17	100.00 (Default)	440	4	100.00	444	100.00	13,802	47.46		273	61.49	190	
18	Total	\$ 73,114	\$ 11,374	58.62 %	\$ 79,782	3.40 %	3,431,937	46.65 %		\$ 37,575	47.10 %	\$ 1,300	\$ 111

2018
Q4

	PD scale ¹	Original on-balance sheet gross exposure ²	Off-balance sheet exposures pre-CCF	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	% \$ 10,335	\$ 4,168	64.75 %	\$ 13,034	0.07 %	756,080	45.16 %		\$ 1,203	9.23 %	\$ 4	
20	0.15 to <0.25	5,723	2,525	41.91	6,781	0.20	362,403	46.67		1,341	19.78	6	
21	0.25 to <0.50	12,122	1,778	60.58	13,199	0.35	505,388	38.62		3,122	23.65	18	
22	0.50 to <0.75	6,321	695	77.09	6,857	0.53	255,005	47.71		2,573	37.52	17	
23	0.75 to <2.50	22,316	1,678	61.16	23,342	1.49	843,607	49.86		14,090	60.36	174	
24	2.50 to <10.00	12,735	498	51.24	12,990	5.70	500,255	50.35		10,420	80.22	372	
25	10.00 to <100.00	3,847	64	53.92	3,882	26.41	180,379	48.78		4,328	111.49	498	
26	100.00 (Default)	425	4	100.00	428	100.00	16,454	47.39		272	63.55	183	
27	Total	\$ 73,824	\$ 11,410	58.63 %	\$ 80,513	3.29 %	3,419,571	46.82 %		\$ 37,349	46.39 %	\$ 1,272	\$ 103

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.

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

(\$ millions, except as noted)

As at

LINE #	2019 Q2					
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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

	Replacement cost	Potential future exposure	Effective expected positive exposure (EEPE)	Alpha used computing regulatory EAD	EAD post-CRM ²	RWA
1	\$ 9,204	\$ 26,206		1.4	\$ 49,568	\$ 7,358
2	-	-		-	-	-
3			-	-	-	-
4					983	9
5					296,335	2,044
6					-	-
7					\$ 346,886	\$ 9,411

2019 Q1					
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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

	Replacement cost	Potential future exposure	Effective expected positive exposure (EEPE)	Alpha used computing regulatory EAD	EAD post-CRM ²	RWA
8	\$ 11,215	\$ 24,926		1.4	\$ 50,590	\$ 6,974
9	-	-		-	-	-
10			-	-	-	-
11					1,248	12
12					255,733	1,822
13					-	-
14					\$ 307,571	\$ 8,808

2018 Q4					
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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

	Replacement cost	Potential future exposure	Effective expected positive exposure (EEPE)	Alpha used computing regulatory EAD	EAD post-CRM ²	RWA
15	\$ -	\$ -		1.4	\$ -	\$ -
16	21,986	28,171		-	50,151	5,209
17			-	-	-	-
18					1,345	13
19					254,409	1,750
20					-	-
21					\$ 305,905	\$ 6,972

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 #	2019 Q2	2019 Q1	2018 Q4
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	32,751	33,460	38,358
Total subject to the CVA capital charge ¹	4	32,751	33,460	38,358

¹ For fiscal 2019, the CVA has been fully phased-in. For fiscal 2018, the scalars for inclusion of CVA for CET1, Tier 1, and Total Capital RWA were 80%, 83%, and 86%, respectively.

Standardized Approach – CCR Exposures by Regulatory Portfolio and Risk Weights (CCR3)

(\$ millions) As at	LINE #	2019 Q2									2019 Q1								
		Risk-weight Total credit exposure									Risk-weight Total credit exposure								
		0%	10%	20%	50%	75%	100%	150%	Other		0%	10%	20%	50%	75%	100%	150%	Other	
Regulatory portfolio ¹																			
Corporate	1	\$ 973	\$ –	\$ –	\$ –	\$ –	\$ 193	\$ –	\$ –	\$ 1,166	\$ 1,236	\$ –	\$ –	\$ –	\$ –	\$ 196	\$ –	\$ –	\$ 1,432
Sovereign	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Bank	3	–	–	3	–	–	–	–	–	3	–	–	2	–	–	–	–	–	2
Total	4	\$ 973	\$ –	\$ 3	\$ –	\$ –	\$ 193	\$ –	\$ –	\$ 1,169	\$ 1,236	\$ –	\$ 2	\$ –	\$ –	\$ 196	\$ –	\$ –	\$ 1,434
		2018 Q4																	
		Risk-weight Total credit exposure																	
		0%	10%	20%	50%	75%	100%	150%	Other										
Regulatory portfolio ¹																			
Corporate	5	\$ 1,331	\$ –	\$ –	\$ –	\$ –	\$ 93	\$ –	\$ –	\$ 1,424									
Sovereign	6	–	–	–	–	–	–	–	–	–									
Bank	7	–	–	4	–	–	–	–	–	4									
Total	8	\$ 1,331	\$ –	\$ 4	\$ –	\$ –	\$ 93	\$ –	\$ –	\$ 1,428									

¹ Excludes any exposures cleared through a qualified CCP.

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

(\$ millions, except as noted)
As at

LINE #	2019 Q2									
	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 % \$	159,264	0.05 %	2,832	3.25 %	0.4 \$	2,009	1.26 %		
2	0.15 to <0.25	24,554	0.19	1,586	5.93	0.4	1,056	4.30		
3	0.25 to <0.50	6,542	0.38	824	5.53	0.5	478	7.31		
4	0.50 to <0.75	1,120	0.72	245	9.51	1.3	214	19.11		
5	0.75 to <2.50	7,700	1.70	444	6.36	0.4	1,234	16.03		
6	2.50 to <10.00 ⁵	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
7	10.00 to <100.00	28	22.44	32	23.63	2.8	37	132.14		
8	100.00 (Default)	1	100.00	2	32.54	1.0	3	300.00		
9	Total \$	199,209	0.15 %	5,965	3.81 %	0.4 \$	5,031	2.53 %		
2019 Q1										
	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 % \$	128,347	0.05 %	2,776	3.46 %	0.4 \$	1,821	1.42 %		
11	0.15 to <0.25	23,178	0.19	1,517	5.47	0.4	1,014	4.37		
12	0.25 to <0.50	7,237	0.37	814	4.13	0.4	393	5.43		
13	0.50 to <0.75	609	0.72	233	14.58	1.8	185	30.38		
14	0.75 to <2.50	15,744	2.24	473	1.95	0.5	793	5.04		
15	2.50 to <10.00 ⁵	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
16	10.00 to <100.00	28	21.03	30	22.27	2.1	32	114.29		
17	100.00 (Default)	1	100.00	3	32.12	1.0	4	400.00		
18	Total \$	175,144	0.29 %	5,846	3.66 %	0.4 \$	4,242	2.42 %		
2018 Q4										
	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 % \$	128,548	0.05 %	3,034	2.97 %	0.4 \$	1,541	1.20 %		
20	0.15 to <0.25	23,996	0.19	1,601	2.11	0.3	380	1.58		
21	0.25 to <0.50	3,418	0.41	825	6.20	0.3	232	6.79		
22	0.50 to <0.75	832	0.72	246	5.42	0.8	89	10.70		
23	0.75 to <2.50	15,056	2.18	478	1.35	0.5	484	3.21		
24	2.50 to <10.00 ⁵	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
25	10.00 to <100.00	22	24.07	34	17.51	1.9	20	90.91		
26	100.00 (Default)	—	—	2	—	—	—	—		
27	Total \$	171,872	0.27 %	6,220	2.79 %	0.4 \$	2,746	1.60 %		

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.

⁵ No internal BRR mapped to the prescribed PD range.

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

(\$ millions, except as noted)

As at

LINE #	2019 Q2									
	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 % \$	48,675	0.02 %	178	2.35 %	0.8 \$	128	0.26 %		
2	0.15 to <0.25	1,182	0.16	19	1.63	0.1	11	0.93		
3	0.25 to <0.50	44	0.47	5	4.04	0.7	3	6.82		
4	0.50 to <0.75	–	–	–	–	–	–	–		
5	0.75 to <2.50	9	2.16	7	13.00	1.0	3	33.33		
6	2.50 to <10.00 ⁵	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
7	10.00 to <100.00	–	–	–	–	–	–	–		
8	100.00 (Default)	–	–	–	–	–	–	–		
9	Total	\$ 49,910	0.02 %	209	2.34 %	0.8 \$	145	0.29 %		
2019 Q1										
	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 % \$	47,053	0.02 %	167	2.74 %	0.9 \$	136	0.29 %		
11	0.15 to <0.25	810	0.16	20	1.44	0.1	6	0.74		
12	0.25 to <0.50	124	0.47	4	3.65	–	4	3.23		
13	0.50 to <0.75	3	0.72	1	13.00	1.0	1	33.33		
14	0.75 to <2.50	8	2.02	7	24.10	1.0	4	50.00		
15	2.50 to <10.00 ⁵	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
16	10.00 to <100.00	–	–	–	–	–	–	–		
17	100.00 (Default)	–	–	–	–	–	–	–		
18	Total	\$ 47,998	0.02 %	199	2.72 %	0.8 \$	151	0.31 %		
2018 Q4										
	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 % \$	39,576	0.02 %	179	4.47 %	1.2 \$	107	0.27 %		
20	0.15 to <0.25	645	0.16	15	1.29	0.1	4	0.62		
21	0.25 to <0.50	83	0.47	5	1.23	–	1	1.20		
22	0.50 to <0.75	–	0.72	1	55.00	1.0	–	–		
23	0.75 to <2.50	1	2.16	4	11.57	1.0	–	–		
24	2.50 to <10.00 ⁵	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
25	10.00 to <100.00	–	–	–	–	–	–	–		
26	100.00 (Default)	–	–	–	–	–	–	–		
27	Total	\$ 40,305	0.02 %	204	4.41 %	1.2 \$	112	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.

⁵ No internal BRR mapped to the prescribed PD range.

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

(\$ millions, except as noted)
As at

LINE #	2019 Q2									
	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 % \$	93,754	0.05 %	321	13.30 %	0.5 \$	3,829	4.08 %		
2	0.15 to <0.25	2,716	0.17	52	10.25	0.5	191	7.03		
3	0.25 to <0.50	109	0.32	16	11.21	0.8	15	13.76		
4	0.50 to <0.75	1	0.72	2	16.11	5.0	—	—		
5	0.75 to <2.50	17	1.19	7	7.10	0.3	3	17.65		
6	2.50 to <10.00 ⁵	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
7	10.00 to <100.00	1	10.63	1	55.00	3.8	3	300.00		
8	100.00 (Default)	—	—	—	—	—	—	—		
9	Total \$	96,598	0.05 %	399	13.21 %	0.5 \$	4,041	4.18 %		
2019 Q1										
	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 % \$	81,105	0.05 %	322	16.42 %	0.5 \$	3,806	4.69 %		
11	0.15 to <0.25	1,479	0.18	54	11.39	0.5	114	7.71		
12	0.25 to <0.50	128	0.34	17	13.37	0.7	21	16.41		
13	0.50 to <0.75	—	0.72	1	10.50	5.0	—	—		
14	0.75 to <2.50	282	2.27	8	46.23	0.1	275	97.52		
15	2.50 to <10.00 ⁵	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
16	10.00 to <100.00	1	10.63	1	55.00	4.1	3	300.00		
17	100.00 (Default)	—	—	—	—	—	—	—		
18	Total \$	82,995	0.06 %	403	16.43 %	0.5 \$	4,219	5.08 %		
2018 Q4										
	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 % \$	90,392	0.05 %	364	12.87 %	0.5 \$	3,603	3.99 %		
20	0.15 to <0.25	1,544	0.16	66	9.66	0.7	119	7.71		
21	0.25 to <0.50	89	0.35	17	12.54	0.8	13	14.61		
22	0.50 to <0.75	—	0.72	8	21.44	4.0	—	—		
23	0.75 to <2.50	275	2.32	11	49.13	0.1	284	103.27		
24	2.50 to <10.00 ⁵	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
25	10.00 to <100.00	—	10.63	1	55.00	4.3	1	—		
26	100.00 (Default)	—	—	—	—	—	—	—		
27	Total \$	92,300	0.06 %	467	12.92 %	0.5 \$	4,020	4.36 %		

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.

⁵ No internal BRR mapped to the prescribed PD range.

Composition of Collateral for CCR Exposure (CCR5)

(\$ millions)
As at

LINE #	2019 Q2						2019 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	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
	Segregated	Unsegregated	Segregated	Unsegregated	received	collateral	Segregated	Unsegregated	Segregated	Unsegregated	received	collateral
Cash – domestic currency	124	2,975	–	757	40,647	67,651	–	2,395	–	927	31,962	48,235
Cash – other currencies	309	4,053	3	5,989	51,754	86,359	50	4,091	–	6,136	48,758	93,861
Domestic sovereign debt	–	1,067	1	794	76,487	48,852	–	214	28	739	52,073	33,971
Other sovereign debt	973	244	1,512	4,154	71,189	67,838	1,004	611	1,058	3,623	67,434	57,992
Corporate bonds	139	374	–	35	5,280	5,643	274	203	–	–	6,718	7,634
Equity securities	5	3	–	–	23,940	52,421	–	7	–	–	26,802	43,797
Other collateral	35	43	488	841	27,889	43,951	4	51	181	143	24,230	36,363
Total	\$ 1,585	\$ 8,759	\$ 2,004	\$ 12,570	\$ 297,186	\$ 372,715	\$ 1,332	\$ 7,572	\$ 1,267	\$ 11,568	\$ 257,977	\$ 321,853
2018 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	received	collateral						
Cash – domestic currency	373	2,543	–	448	32,184	47,566						
Cash – other currencies	320	6,708	3	6,165	64,131	102,988						
Domestic sovereign debt	–	393	18	421	60,390	41,941						
Other sovereign debt	466	569	761	4,077	72,186	68,111						
Corporate bonds	39	334	–	–	5,188	7,113						
Equity securities	30	5	–	–	27,819	47,777						
Other collateral	1	482	–	76	22,569	36,869						
Total	\$ 1,229	\$ 11,034	\$ 782	\$ 11,187	\$ 284,467	\$ 352,365						

Credit Derivatives Exposures (CCR6)

(\$ millions) As at	LINE #	2019 Q2	2019 Q1	2018 Q4			
		Protection bought	Protection sold	Protection bought	Protection sold	Protection bought	Protection sold
Notionals							
Single-name credit default swaps	1	\$ 5,423	\$ 827	\$ 5,597	\$ 677	\$ 5,316	\$ 698
Index credit default swaps	2	6,248	33	7,274	1,159	6,723	423
Total return swaps	3	—	—	—	—	—	—
Credit options	4	—	—	—	—	—	—
Other credit derivatives	5	6,187	—	4,998	—	3,179	—
Total notionals	6	17,858	860	17,869	1,836	15,218	1,121
Fair values							
Positive fair value (asset)	7	7	44	12	55	12	35
Negative fair value (liability)	8	(484)	(2)	(427)	(2)	(408)	(1)

Exposures to Central Counterparties (CCR8)¹

(\$ millions) As at	LINE #	2019 Q2	2019 Q1	2018 Q4			
		EAD post-CRM	RWA	EAD post-CRM	RWA	EAD post-CRM	RWA
Exposures to QCCPs (total)	1	\$	\$ 619	\$	\$ 765	\$	\$ 3,362
Exposures for trades at QCCPs (excluding initial margin and default fund contributions) – of which:	2						
(i) OTC derivatives	3	17,545	351	21,201	424	19,029	1,490
(ii) Exchange-traded derivatives	4	11,415	228	15,555	311	12,181	608
(iii) Securities financing transactions	5	1,599	32	1,730	35	2,151	102
(iv) Netting sets where cross-product netting has been approved	6	4,531	91	3,916	78	4,697	780
Segregated initial margin	7	–	–	–	–	–	–
Non-segregated initial margin	8	–	–	–	–	–	–
Pre-funded default fund contributions	9	3,067	–	3,163	–	3,540	441
Unfunded default fund contributions	10	768	268	720	341	781	1,431
		–	–	–	–	–	–

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

Derivatives – Notional

(\$ millions)
As at

LINE #	2019 Q2	2019 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	\$ – \$ – \$ 882,220 \$ 882,220 \$ – \$ 882,220	\$ – \$ – \$ 996,714 \$ 996,714 \$ – \$ 996,714
Forward rate agreements	1,311,666 42,687 – 1,354,353 462 1,354,815	1,228,118 53,332 – 1,281,450 163 1,281,613
Swaps	8,157,205 448,310 – 8,605,515 1,556,437 10,161,952	7,877,245 432,609 – 8,309,854 1,421,591 9,731,445
Options written	– 86,636 95,986 182,622 389 183,011	– 72,375 86,178 158,553 210 158,763
Options purchased	– 77,860 118,050 195,910 5,798 201,708	– 63,987 113,291 177,278 2,570 179,848
	9,468,871 655,493 1,096,256 11,220,620 1,563,086 12,783,706	9,105,363 622,303 1,196,183 10,923,849 1,424,534 12,348,383
Foreign Exchange Contracts		
Futures	– – 24 24 – 24	– – 24 24 – 24
Forward contracts	– 1,946,804 – 1,946,804 22,354 1,969,158	– 1,846,690 – 1,846,690 26,794 1,873,484
Swaps	– 6 – 6 – 6	– 6 – 6 – 6
Cross-currency interest rate swaps	– 728,013 – 728,013 99,313 827,326	– 707,497 – 707,497 96,900 804,397
Options written	– 29,369 – 29,369 – 29,369	– 35,325 – 35,325 – 35,325
Options purchased	– 29,416 – 29,416 – 29,416	– 34,856 – 34,856 – 34,856
	– 2,733,608 24 2,733,632 121,667 2,855,299	– 2,624,374 24 2,624,398 123,694 2,748,092
Credit Derivative Contracts		
Credit default swaps		
Protection purchased	9,188 215 – 9,403 2,953 12,356	10,230 183 – 10,413 2,974 13,387
Protection sold	753 107 – 860 – 860	1,716 120 – 1,836 – 1,836
	9,941 322 – 10,263 2,953 13,216	11,946 303 – 12,249 2,974 15,223
Other Contracts		
Equity contracts	– 66,898 58,972 125,870 29,466 155,336	– 62,314 49,811 112,125 29,841 141,966
Commodity contracts	114 39,910 35,873 75,897 – 75,897	186 37,488 27,429 65,103 – 65,103
	114 106,808 94,845 201,767 29,466 231,233	186 99,802 77,240 177,228 29,841 207,069
Total	\$ 9,478,926 \$ 3,496,231 \$ 1,191,125 \$ 14,166,282 \$ 1,717,172 \$ 15,883,454	\$ 9,117,495 \$ 3,346,782 \$ 1,273,447 \$ 13,737,724 \$ 1,581,043 \$ 15,318,767
	2018 Q4	2018 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	\$ – \$ – \$ 575,825 \$ 575,825 \$ – \$ 575,825	\$ – \$ – \$ 965,006 \$ 965,006 \$ – \$ 965,006
Forward rate agreements	919,623 51,056 – 970,679 225 970,904	828,170 89,694 – 917,864 201 918,065
Swaps	7,580,152 444,065 – 8,024,217 1,418,487 9,442,704	7,248,333 450,204 – 7,698,537 1,399,687 9,098,224
Options written	– 79,649 121,246 200,895 53 200,948	– 60,547 109,636 170,183 242 170,425
Options purchased	– 70,201 154,683 224,884 2,891 227,775	– 58,626 121,267 179,893 3,507 183,400
	8,499,775 644,971 851,754 9,996,500 1,421,656 11,418,156	8,076,503 659,071 1,195,909 9,931,483 1,403,637 11,335,120
Foreign Exchange Contracts		
Futures	– – 24 24 – 24	– – 9 9 – 9
Forward contracts	– 1,796,542 – 1,796,542 29,140 1,825,682	– 1,672,277 – 1,672,277 31,235 1,703,512
Swaps	– 6 – 6 – 6	– – – – –
Cross-currency interest rate swaps	– 688,980 – 688,980 96,966 785,946	– 650,760 – 650,760 88,161 738,921
Options written	– 34,090 – 34,090 – 34,090	– 32,623 – 32,623 – 32,623
Options purchased	– 32,655 – 32,655 – 32,655	– 31,298 – 31,298 – 31,298
	– 2,552,273 24 2,552,297 126,106 2,678,403	– 2,386,958 9 2,386,967 119,396 2,506,363
Credit Derivative Contracts		
Credit default swaps		
Protection purchased	9,665 202 – 9,867 2,745 12,612	10,054 255 – 10,309 2,657 12,966
Protection sold	987 135 – 1,122 – 1,122	1,739 135 – 1,874 – 1,874
	10,652 337 – 10,989 2,745 13,734	11,793 390 – 12,183 2,657 14,840
Other Contracts		
Equity contracts	– 57,736 57,161 114,897 30,430 145,327	– 49,368 39,454 88,822 31,206 120,028
Commodity contracts	150 33,161 39,882 73,193 – 73,193	101 33,138 27,059 60,298 – 60,298
	150 90,897 97,043 188,090 30,430 218,520	101 82,506 66,513 149,120 31,206 180,326
Total	\$ 8,510,577 \$ 3,288,478 \$ 948,821 \$ 12,747,876 \$ 1,580,937 \$ 14,328,813	\$ 8,088,397 \$ 3,128,925 \$ 1,262,431 \$ 12,479,753 \$ 1,556,896 \$ 14,036,649

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 #	2018 Q2					
			Trading					
			Over-the-counter ¹					
			Clearing house ²	Non- clearing house	Exchange- traded	Total	Non- trading	Total
Interest Rate Contracts								
Futures	1		\$ —	\$ —	\$ 1,240,242	\$ 1,240,242	\$ —	\$ 1,240,242
Forward rate agreements	2		817,677	90,218	—	907,895	182	908,077
Swaps	3		7,186,042	476,198	—	7,662,240	1,371,796	9,034,036
Options written	4		—	47,537	49,175	96,712	223	96,935
Options purchased	5		—	42,055	59,169	101,224	3,739	104,963
	6		8,003,719	656,008	1,348,586	10,008,313	1,375,940	11,384,253
Foreign Exchange Contracts								
Futures	7		—	—	28	28	—	28
Forward contracts	8		—	1,662,841	—	1,662,841	32,658	1,695,499
Swaps	9		—	—	—	—	—	—
Cross-currency interest rate swaps	10		—	623,101	—	623,101	74,965	698,066
Options written	11		—	27,227	—	27,227	—	27,227
Options purchased	12		—	26,515	—	26,515	—	26,515
	13		—	2,339,684	28	2,339,712	107,623	2,447,335
Credit Derivative Contracts								
Credit default swaps								
Protection purchased	14		8,776	323	—	9,099	2,867	11,966
Protection sold	15		763	140	—	903	—	903
	16		9,539	463	—	10,002	2,867	12,869
Other Contracts								
Equity contracts	17		—	44,431	30,120	74,551	31,468	106,019
Commodity contracts	18		83	33,167	32,680	65,930	—	65,930
	19		83	77,598	62,800	140,481	31,468	171,949
Total	20		\$ 8,013,341	\$ 3,073,753	\$ 1,411,414	\$ 12,498,508	\$ 1,517,898	\$ 14,016,406

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 #	2019 Q2 ¹			2019 Q1 ¹		
		Current replacement cost ²	Credit equivalent amount	Risk- weighted amount	Current replacement cost ²	Credit equivalent amount	Risk- weighted amount
Interest Rate Contracts							
Forward rate agreements	1	\$ 19	\$ 489	\$ 423	\$ 34	\$ 292	\$ 195
Swaps	2	4,284	9,267	1,735	4,616	9,257	1,653
Options purchased	3	113	252	70	109	307	99
	4	4,416	10,008	2,228	4,759	9,856	1,947
Foreign Exchange Contracts							
Forward contracts	5	2,193	18,799	2,404	3,845	20,130	2,357
Swaps	6	1	48	10	—	53	10
Cross-currency interest rate swaps	7	1,815	13,159	1,457	1,989	13,537	1,466
Options purchased	8	83	281	62	71	384	78
	9	4,092	32,287	3,933	5,905	34,104	3,911
Other Contracts							
Credit derivatives	10	7	387	123	5	361	114
Equity contracts	11	316	4,213	468	205	3,759	458
Commodity contracts	12	373	2,673	606	341	2,510	544
	13	696	7,273	1,197	551	6,630	1,116
Total net derivatives	14	9,204	49,568	7,358	11,215	50,590	6,974
Qualifying Central Counterparty (QCCP) contracts ³	15	3,664	13,014	383	4,216	17,302	545
Total	16	\$ 12,868	\$ 62,582	\$ 7,741	\$ 15,431	\$ 67,892	\$ 7,519

		2018 Q4			2018 Q3			2018 Q2		
		Current replacement cost ²	Credit equivalent amount	Risk- weighted amount	Current replacement cost ²	Credit equivalent amount	Risk- weighted amount	Current replacement cost ²	Credit equivalent amount	Risk- weighted amount
Interest Rate Contracts										
Forward rate agreements	17	\$ 21	\$ 56	\$ 15	\$ 34	\$ 119	\$ 41	\$ 56	\$ 122	\$ 40
Swaps	18	11,630	15,557	4,193	12,114	16,065	4,613	12,742	16,749	5,188
Options purchased	19	508	776	299	490	723	313	426	625	272
	20	12,159	16,389	4,507	12,638	16,907	4,967	13,224	17,496	5,500
Foreign Exchange Contracts										
Forward contracts	21	17,605	35,543	4,247	12,350	30,025	3,818	17,560	34,640	4,291
Swaps	22	—	—	—	63	—	—	49	—	—
Cross-currency interest rate swaps	23	21,218	40,942	7,012	18,861	37,380	6,503	20,504	38,120	6,989
Options purchased	24	486	1,029	212	381	925	202	359	846	200
	25	39,309	77,514	11,471	31,655	68,330	10,523	38,472	73,606	11,480
Other Contracts										
Credit derivatives	26	3	358	145	4	345	136	5	308	119
Equity contracts	27	3,043	7,383	920	1,093	4,979	761	1,243	4,944	829
Commodity contracts	28	1,101	2,546	514	1,184	2,752	588	1,156	2,714	511
	29	4,147	10,287	1,579	2,281	8,076	1,485	2,404	7,966	1,459
Total derivatives	30	55,615	104,190	17,557	46,574	93,313	16,975	54,100	99,068	18,439
Less: impact of master netting agreements	31	34,205	54,039	11,464	29,622	49,365	11,199	34,276	52,734	12,407
Total after netting	32	21,410	50,151	6,093	16,952	43,948	5,776	19,824	46,334	6,032
Less: impact of collateral	33	8,884	9,602	1,173	6,757	7,342	912	8,604	9,391	1,122
Net	34	12,526	40,549	4,920	10,195	36,606	4,864	11,220	36,943	4,910
QCCP contracts ³	35	155	14,332	2,058	3,170	16,704	1,871	3,409	17,062	2,688
Total	36	\$ 12,681	\$ 54,881	\$ 6,978	\$ 13,365	\$ 53,310	\$ 6,735	\$ 14,629	\$ 54,005	\$ 7,598

¹ As of the first quarter of 2019, the standardized approach for counterparty credit risk (SA-CCR) was implemented in determining the calculation of replacement costs, credit equivalent amount and RWA which includes the impact of master netting agreements and collateral. Under the previous methodology these impacts were presented separately.

² Non-trading credit derivatives, which are given financial guarantee treatment for credit risk capital purposes, were excluded in accordance with OSFI's guidelines.

³ 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 #	2019 Q2			2019 Q1			2018 Q4		
		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	\$ 23,424	\$ 39,988	\$ 63,412	\$ 22,843	\$ 39,155	\$ 61,998	\$ 22,858	\$ 41,927	\$ 64,785
Residential mortgage	2	9,663	494	10,157	9,655	610	10,265	9,775	889	10,664
Credit card	3	1,726	17,758	19,484	1,477	18,102	19,579	1,524	18,212	19,736
Other retail exposures	4	12,035	21,736	33,771	11,711	20,443	32,154	11,559	22,819	34,378
Re-securitization	5	–	–	–	–	–	–	–	7	7
Wholesale (total) – of which:	6	7,123	24,849	31,972	6,863	23,833	30,696	6,979	21,576	28,555
Loans to corporates	7	–	3,418	3,418	–	3,036	3,036	–	2,785	2,785
Commercial mortgage	8	–	16,351	16,351	–	15,941	15,941	–	17,265	17,265
Lease and receivables	9	7,123	5,080	12,203	6,863	4,856	11,719	6,979	1,526	8,505
Other wholesale	10	–	–	–	–	–	–	–	–	–
Re-securitization	11	–	–	–	–	–	–	–	–	–

Securitization Exposures in the Trading Book (SEC2)¹

(\$ millions) As at	LINE #	2019 Q2			2019 Q1			2018 Q4		
		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	\$ –	\$ 786	\$ 786	\$ –	\$ 625	\$ 625	\$ –	\$ 636	\$ 636
Residential mortgage	2	–	–	–	–	–	–	–	–	–
Credit card	3	–	115	115	–	142	142	–	53	53
Other retail exposures	4	–	671	671	–	483	483	–	583	583
Re-securitization	5	–	–	–	–	–	–	–	–	–
Wholesale (total) – of which:	6	–	52	52	–	28	28	–	146	146
Loans to corporates	7	–	–	–	–	–	–	–	–	–
Commercial mortgage	8	–	1	1	–	1	1	–	1	1
Lease and receivables	9	–	–	–	–	–	–	–	–	–
Other wholesale	10	–	51	51	–	27	27	–	145	145
Re-securitization	11	–	–	–	–	–	–	–	–	–

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		LINE #	2019 Q2																
			Exposure values (by RW bands)					Exposure values (by regulatory approach)				RWA (by regulatory approach) ³				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	\$ 29,278	\$ 745	\$ 332	\$ 184	\$ 9	\$ –	\$ 30,539	\$ –	\$ 9	\$ –	\$ 4,046	\$ –	\$ 111	\$ –	\$ 297	\$ –	\$ 9
of which: securitization		2	29,278	745	332	184	9	–	30,539	–	9	–	4,046	–	111	–	297	–	9
of which: retail underlying		3	22,348	685	199	184	9	–	23,416	–	9	–	3,153	–	111	–	226	–	9
of which: wholesale		4	6,930	60	133	–	–	–	7,123	–	–	–	893	–	–	–	71	–	–
of which: re-securitization		5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: senior		6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: non-senior		7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total		8	\$ 29,278	\$ 745	\$ 332	\$ 184	\$ 9	\$ –	\$ 30,539	\$ –	\$ 9	\$ –	\$ 4,046	\$ –	\$ 111	\$ –	\$ 297	\$ –	\$ 9
			2019 Q1 ²																
			Exposure values (by RW bands)					Exposure values (by regulatory approach)				RWA (by regulatory approach) ³				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	\$ 28,032	\$ 1,061	\$ 447	\$ 156	\$ 10	\$ –	\$ 29,696	\$ –	\$ 10	\$ –	\$ 3,940	\$ –	\$ 125	\$ –	\$ 286	\$ –	\$ 10
of which: securitization		10	28,032	1,061	447	156	10	–	29,696	–	10	–	3,940	–	125	–	286	–	10
of which: retail underlying		11	21,405	979	293	156	10	–	22,833	–	10	–	3,052	–	125	–	215	–	10
of which: wholesale		12	6,627	82	154	–	–	–	6,863	–	–	–	888	–	–	–	71	–	–
of which: re-securitization		13	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: senior		14	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: non-senior		15	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total		16	\$ 28,032	\$ 1,061	\$ 447	\$ 156	\$ 10	\$ –	\$ 29,696	\$ –	\$ 10	\$ –	\$ 3,940	\$ –	\$ 125	\$ –	\$ 286	\$ –	\$ 10
			2018 Q4																
			Exposure values (by RW bands)					Exposure values (by regulatory approach)				RWA (by regulatory approach)				Capital charge after cap			
			</20% RW	>20% to 50% RW	>50% to 100% RW	>100% to 1250% RW	1250% RW	IRB RBA including IAA	IRB SFA	SA/ SSFA	1250%	IRB RBA including IAA	IRB SFA	SA/ SSFA	1250%	IRB RBA including IAA	IRB SFA	SA/ SSFA	1250%
Total exposures																			
Traditional securitization		17	\$ 29,725	\$ –	\$ 103	\$ –	\$ 9	\$ 29,837	\$ –	\$ –	\$ –	\$ 2,313	\$ –	\$ –	\$ –	\$ 185	\$ –	\$ –	\$ –
of which: securitization		18	29,725	–	103	–	9	29,837	–	–	–	2,313	–	–	–	185	–	–	–
of which: retail underlying		19	22,746	–	103	–	9	22,858	–	–	–	1,735	–	–	–	139	–	–	–
of which: wholesale		20	6,979	–	–	–	–	6,979	–	–	–	578	–	–	–	46	–	–	–
of which: re-securitization		21	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: senior		22	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: non-senior		23	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total		24	\$ 29,725	\$ –	\$ 103	\$ –	\$ 9	\$ 29,837	\$ –	\$ –	\$ –	\$ 2,313	\$ –	\$ –	\$ –	\$ 185	\$ –	\$ –	\$ –

¹ The Bank does not have any synthetic securitization exposures.

² As of the first quarter of 2019, the regulatory approaches have been updated to reflect the implementation of the new securitization framework.

³ 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 #	2019 Q2																
			Exposure values (by RW bands)					Exposure values (by regulatory approach)				RWA (by regulatory approach) ³				Capital charge after cap			
			</20% RW	>20% to 50% RW	>50% to 100% RW	>100% to 1250% RW	1250% RW	IBRA	ERBA/ IAA	SA	1250%	IBRA	ERBA/ IAA	SA	1250%	IBRA	ERBA/ IAA	SA	1250%
Total exposures																			
Traditional securitization		1	\$ 63,610	\$ 1,226	\$ –	\$ –	\$ –	\$ –	\$ 64,473	\$ 363	\$ –	\$ –	\$ 9,659	\$ 52	\$ –	\$ –	\$ 730	\$ 4	\$ –
of which: securitization		2	63,610	1,226	–	–	–	–	64,473	363	–	–	9,659	52	–	–	730	4	–
of which: retail underlying		3	38,761	1,226	–	–	–	–	39,942	45	–	–	4,965	10	–	–	355	1	–
of which: wholesale		4	24,849	–	–	–	–	–	24,531	318	–	–	4,694	42	–	–	375	3	–
of which: re-securitization		5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: senior		6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: non-senior		7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total		8	\$ 63,610	\$ 1,226	\$ –	\$ –	\$ –	\$ –	\$ 64,473	\$ 363	\$ –	\$ –	\$ 9,659	\$ 52	\$ –	\$ –	\$ 730	\$ 4	\$ –
			2019 Q1 ²																
			Exposure values (by RW bands)					Exposure values (by regulatory approach)				RWA (by regulatory approach) ³				Capital charge after cap			
			</20% RW	>20% to 50% RW	>50% to 100% RW	>100% to 1250% RW	1250% RW	IBRA	ERBA/ IAA	SA	1250%	IBRA	ERBA/ IAA	SA	1250%	IBRA	ERBA/ IAA	SA	1250%
Total exposures																			
Traditional securitization		9	\$ 62,266	\$ 722	\$ –	\$ –	\$ –	\$ –	\$ 62,988	\$ –	\$ –	\$ –	\$ 9,335	\$ –	\$ –	\$ –	\$ 703	\$ –	\$ –
of which: securitization		10	62,266	722	–	–	–	–	62,988	–	–	–	9,335	–	–	–	703	–	–
of which: retail underlying		11	38,433	722	–	–	–	–	39,155	–	–	–	4,794	–	–	–	340	–	–
of which: wholesale		12	23,833	–	–	–	–	–	23,833	–	–	–	4,541	–	–	–	363	–	–
of which: re-securitization		13	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: senior		14	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
of which: non-senior		15	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total		16	\$ 62,266	\$ 722	\$ –	\$ –	\$ –	\$ –	\$ 62,988	\$ –	\$ –	\$ –	\$ 9,335	\$ –	\$ –	\$ –	\$ 703	\$ –	\$ –
			2018 Q4																
			Exposure values (by RW bands)					Exposure values (by regulatory approach)				RWA (by regulatory approach)				Capital charge after cap			
			</20% RW	>20% to 50% RW	>50% to 100% RW	>100% to 1250% RW	1250% RW	IRB RBA including IAA	IRB SFA	SA/ SSFA	1250%	IRB RBA including IAA	IRB SFA	SA/ SSFA	1250%	IRB RBA including IAA	IRB SFA	SA/ SSFA	1250%
Total exposures																			
Traditional securitization		17	\$ 62,465	\$ –	\$ 694	\$ 151	\$ 193	\$ 41,927	\$ –	\$ 21,576	\$ –	\$ 6,892	\$ –	\$ 4,315	\$ –	\$ 551	\$ –	\$ 345	\$ –
of which: securitization		18	62,465	–	694	144	193	41,920	–	21,576	–	6,841	–	4,315	–	547	–	345	–
of which: retail underlying		19	40,889	–	694	144	193	41,920	–	–	–	6,841	–	–	–	547	–	–	–
of which: wholesale		20	21,576	–	–	–	–	–	–	21,576	–	–	–	4,315	–	–	–	345	–
of which: re-securitization		21	–	–	–	7	–	7	–	–	–	51	–	–	–	4	–	–	–
of which: senior		22	–	–	–	7	–	7	–	–	–	51	–	–	–	4	–	–	–
of which: non-senior		23	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total		24	\$ 62,465	\$ –	\$ 694	\$ 151	\$ 193	\$ 41,927	\$ –	\$ 21,576	\$ –	\$ 6,892	\$ –	\$ 4,315	\$ –	\$ 551	\$ –	\$ 345	\$ –

¹ The Bank does not have any synthetic securitization exposures.

² As of the first quarter of 2019, the regulatory approaches have been updated to reflect the implementation of the new securitization framework.

³ RWA before application cap.

AIRB Credit Risk Exposures: Actual and Estimated Parameters

(Percentage) As at		LINE #	2019 Q2						2019 Q1					
			Average Estimated PD ¹	Actual Default Rate	Average Estimated LGD ²	Actual LGD ³	Average Estimated EAD	Actual EAD	Average Estimated PD ¹	Actual Default Rate	Average Estimated LGD ²	Actual LGD ³	Average Estimated EAD	Actual EAD
Retail														
Residential secured uninsured	1		0.46 %	0.30 %	29.96 %	9.73 %	96.05 %	100.27 %	0.56 %	0.32 %	28.45 %	11.22 %	96.19 %	100.68 %
Residential secured insured ⁴	2		0.45	0.30	n/a	n/a	98.98	99.07	0.44	0.27	n/a	n/a	99.40	99.29
Qualifying revolving retail	3		2.44	2.77	88.38	81.34	97.90	94.74	2.49	2.91	88.77	80.48	98.18	94.99
Other retail	4		2.62	1.99	55.64	46.25	99.32	92.10	2.57	1.99	54.88	45.23	99.34	91.42
Non-Retail														
Corporate	5		1.24	0.38	17.78	18.84	90.67	72.01	1.25	0.31	18.42	19.46	90.84	59.89
Sovereign	6		0.07	—	9.56	n/a	99.72	n/a	0.07	—	10.16	n/a	99.71	n/a
Bank	7		0.21	—	16.08	n/a	95.93	n/a	0.21	—	18.03	n/a	96.33	n/a
			2018 Q4						2018 Q3					
			Average Estimated PD ¹	Actual Default Rate	Average Estimated LGD ²	Actual LGD ³	Average Estimated EAD	Actual EAD	Average Estimated PD ¹	Actual Default Rate	Average Estimated LGD ²	Actual LGD ³	Average Estimated EAD	Actual EAD
Retail														
Residential secured uninsured	8		0.60 %	0.35 %	28.94 %	11.82 %	95.95 %	100.95 %	0.62 %	0.38 %	28.83 %	12.73 %	95.94 %	100.68 %
Residential secured insured ⁴	9		0.43	0.26	n/a	n/a	99.33	99.36	0.43	0.26	n/a	n/a	99.34	99.36
Qualifying revolving retail	10		2.50	3.02	88.70	80.14	97.91	94.79	2.51	3.02	88.53	80.33	97.95	94.68
Other retail	11		2.52	1.99	54.87	46.10	99.32	91.44	2.47	1.98	53.39	45.08	99.30	91.35
Non-Retail														
Corporate	12		1.27	0.32	18.17	24.36	90.76	57.40	1.21	0.31	17.91	24.35	90.65	56.36
Sovereign	13		0.09	—	10.95	n/a	99.63	n/a	0.09	—	10.88	n/a	99.71	n/a
Bank	14		0.23	—	15.25	n/a	96.87	n/a	0.21	—	16.00	n/a	96.94	n/a
			2018 Q2											
			Average Estimated PD ¹	Actual Default Rate	Average Estimated LGD ²	Actual LGD ³	Average Estimated EAD	Actual EAD						
Retail														
Residential secured uninsured	15		0.64 %	0.39 %	29.47 %	14.29 %	96.28 %	98.38 %						
Residential secured insured ⁴	16		0.45	0.26	n/a	n/a	99.40	99.34						
Qualifying revolving retail	17		1.54	1.47	87.17	79.89	92.53	90.09						
Other retail	18		2.47	2.01	53.21	45.38	99.28	91.01						
Non-Retail														
Corporate	19		1.24	0.32	17.64	24.06	91.27	53.33						
Sovereign	20		0.11	—	10.86	n/a	99.72	n/a						
Bank	21		0.19	—	16.05	n/a	97.49	n/a						

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

² Estimated LGD reflects loss estimates for the full portfolio under a severe downturn economic scenario.

³ Represents average LGD of the impaired portfolio over trailing 12 months.

⁴ LGD for the residential secured insured portfolio is n/a due to the effect of CRM from government backed entities.

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. From fiscal 2014 to 2018, there were three different measures of RWA used for each capital ratio due to the different scalars used for the phase-in of the CVA. For fiscal 2018, the scalars for inclusion of CVA for CET1, Tier 1, and Total Capital RWA were 80%, 83%, and 86%, respectively. For fiscal 2019, the CVA has been fully phased-in.
Approaches used by the Bank to calculate RWA	
For Credit Risk	
Standardized Approach	<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	
Advanced Measurement Approach (AMA)	<ul style="list-style-type: none"> Under this approach, banks use their own internal operational risk measurement system with quantitative and qualitative criteria to calculate operational risk capital.
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. As per OSFI's final Capital Adequacy Requirements (CAR) guideline, the CVA capital charge was implemented for 2014, and in 2019 has been fully phased-in.
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 CET1 Capital RWA.
Return on Common Equity Tier 1 (CET1) Capital risk-weighted assets	<ul style="list-style-type: none"> Net income available to common shareholders as a percentage of average CET1 Capital 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	IFRS	International Financial Reporting Standards
BCBS	Basel Committee on Banking Supervision	IMM	Internal Model Method
BRR	Borrower Risk Rating	IRB	Internal Ratings-Based
CCF	Credit Conversion Factor	N/A	Not Applicable
CCP	Central Counterparty	N/M	Not Meaningful
CCR	Counterparty Credit Risk	NVCC	Non-Viability Contingent Capital
CDS	Credit Default Swaps	OCC	Office of the Comptroller of the Currency
CMHC	Canada Mortgage and Housing Corporation	OSFI	Office of the Superintendent of Financial Institutions Canada
CRM	Credit Risk Mitigation	OTC	Over-The-Counter
CSA	Credit Support Annex	PFE	Potential Future Exposure
D-SIBs	Domestic Systemically Important Banks	QCCP	Qualifying Central Counterparty
FSB	Financial Stability Board	SA-CCR	Standardized Approach Counterparty Credit Risk
G-SIBs	Global Systemically Important Banks	SFTs	Securities Financing Transactions
HELOCs	Home Equity Lines of Credit	TLAC	Total Loss Absorbing Capacity
IAA	Internal Assessment Approach	VaR	Value-at-Risk