



## SUPPLEMENTARY REGULATORY CAPITAL DISCLOSURE

SECOND QUARTER 2017

(unaudited)

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## Notes to users

- 1) This Supplementary Regulatory Capital Disclosure document is unaudited and should be read in conjunction with the 2016 Annual Report. All amounts are in millions of Canadian dollars unless otherwise stated.
- 2) Financial information is available through the Report to Shareholders for all quarters of 2017 and also in the document entitled *Supplementary Financial Information* which is available on the Bank's website at [nbc.ca](http://nbc.ca).



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# Regulatory Capital and Capital Ratios under Basel III <sup>(1)</sup>

		2017		2016				
		Q2	Q1	Q4	Q3	Q2	Q1	
(unaudited) (millions of Canadian dollars)		All-in basis						
		Reference <sup>(2)</sup>						
<b>Common Equity Tier 1 capital: instruments and reserves</b>								
1	Directly issued qualifying common share capital plus related contributed surplus <sup>(3)</sup>	a + a'	2,850	2,820	2,718	2,663	2,689	2,691
2	Retained earnings	b	7,164	7,065	6,706	6,683	6,530	6,593
3	Accumulated other comprehensive income and other reserves	c	221	173	218	217	145	91
5	Common share capital issued by subsidiaries and held by third parties (amount allowed in group CET1)	d	7	7	7	7	-	-
6	<b>Common Equity Tier 1 capital before regulatory adjustments</b>		<b>10,242</b>	<b>10,065</b>	<b>9,649</b>	<b>9,570</b>	<b>9,364</b>	<b>9,375</b>
<b>Regulatory adjustments to Common Equity Tier 1 capital</b>								
8	Goodwill (net of related tax liability)	e	1,677	1,662	1,669	1,661	1,545	1,557
9	Intangible assets other than mortgage-servicing rights	f - x	1,016	997	985	977	954	898
11	Accumulated other comprehensive income related to cash flow hedges	h	91	131	135	165	160	124
12	Shortfall of total provisions to expected losses	i	-	-	-	-	-	12
14	Gains (losses) due to changes in own credit risk on fair valued liabilities	j	(25)	(17)	(14)	(2)	(1)	28
15	Defined benefit pension plan assets (net of related tax liability)	k - y	7	18	7	8	30	13
16	Investments in own shares (if not already netted off contributed surplus on reported balance sheet)		6	6	2	3	7	-
22	Amount exceeding the 15% threshold		-	-	-	-	-	-
23	of which: significant investments in the common stock of financials	n	-	-	-	-	-	-
25	of which: deferred tax assets arising from temporary differences	o	-	-	-	-	-	-
26	Other deductions or regulatory adjustments to CET1 as determined by OSFI (including regulatory adjustments in respect of own use property)		-	-	-	-	-	-
28	<b>Total regulatory adjustments to Common equity Tier 1</b>		<b>2,772</b>	<b>2,797</b>	<b>2,784</b>	<b>2,812</b>	<b>2,695</b>	<b>2,632</b>
29	<b>Common Equity Tier 1 capital (CET1)</b>		<b>7,470</b>	<b>7,268</b>	<b>6,865</b>	<b>6,758</b>	<b>6,669</b>	<b>6,743</b>
<b>Additional Tier 1 capital: instruments</b>								
30	Directly issued qualifying Additional Tier 1 instruments plus related contributed surplus <sup>(3)</sup>	v	1,450	1,450	1,450	1,450	1,050	1,050
31	of which: classified as equity under applicable accounting standards	v + z	1,450	1,450	1,450	1,450	1,050	1,050
32	of which: classified as liabilities under applicable accounting standards	p	-	-	-	-	-	-
33	Directly issued capital instruments subject to phase out from Additional Tier 1 <sup>(3)</sup>	p' + v'	950	950	950	950	1,162	1,161
34	Additional Tier 1 instruments (and CET1 instruments not included in row 5) issued by subsidiaries and held by third parties (amount allowed in group AT1)	q	2	1	1	1	-	-
36	<b>Additional Tier 1 capital before regulatory adjustments</b>		<b>2,402</b>	<b>2,401</b>	<b>2,401</b>	<b>2,401</b>	<b>2,212</b>	<b>2,211</b>
<b>Additional Tier 1 capital: regulatory adjustments</b>								
41	Other deductions from Tier 1 capital as determined by OSFI		1	1	1	1	1	-
41a	of which: Reverse mortgages		1	1	1	1	1	-
43	<b>Total regulatory adjustments to Additional Tier 1 capital</b>		<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>-</b>
44	<b>Additional Tier 1 capital (AT1)</b>		<b>2,401</b>	<b>2,400</b>	<b>2,400</b>	<b>2,400</b>	<b>2,211</b>	<b>2,211</b>
45	<b>Tier 1 capital (T1 = CET1 + AT1)</b>		<b>9,871</b>	<b>9,668</b>	<b>9,265</b>	<b>9,158</b>	<b>8,880</b>	<b>8,954</b>
<b>Tier 2 capital: instruments and provisions</b>								
47	Directly issued capital instruments subject to phase out from Tier 2 <sup>(3)</sup>	r'	10	1,009	1,009	1,009	1,009	1,010
48	Tier 2 instruments (and CET1 and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties (amount allowed in group Tier 2)	s	2	2	2	2	-	-
50	Allowances on loans <sup>(4)</sup>	t	204	234	230	236	275	33
51	<b>Tier 2 capital before regulatory adjustments</b>		<b>216</b>	<b>1,245</b>	<b>1,241</b>	<b>1,247</b>	<b>1,284</b>	<b>1,043</b>
<b>Tier 2 capital: regulatory adjustments</b>								
57	<b>Total regulatory adjustments to Tier 2 capital</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
58	<b>Tier 2 capital (T2)</b>		<b>216</b>	<b>1,245</b>	<b>1,241</b>	<b>1,247</b>	<b>1,284</b>	<b>1,043</b>
59	<b>Total capital (TC = T1 + T2)</b>		<b>10,087</b>	<b>10,913</b>	<b>10,506</b>	<b>10,405</b>	<b>10,164</b>	<b>9,997</b>

(1) As requested by the Office of the Superintendent of Financial Institutions (Canada) (OSFI), all the Domestic Systemically Important Banks (D-SIBs) in Canada must fully apply the Basel III deductions and must disclose the all-in-ratios.

(2) Reconciliation with Balance Sheet is presented on page 7.

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

(4) During the second quarter of 2016, a \$250 million (\$183 million net of income taxes) sectoral provision for credit losses was recorded for producers and service companies in the oil and gas sector.

# Regulatory Capital and Capital Ratios under Basel III<sup>(1)</sup> (continued)

		2017		2016			
		Q2	Q1	Q4	Q3	Q2	Q1
(unaudited) (millions of Canadian dollars)		<b>All-in basis</b>					
60a	Common Equity Tier 1 Capital RWA (CET1)	69,383	68,574	68,205	68,530	68,375	69,741
60b	Tier 1 Capital RWA	69,533	68,715	68,430	68,765	68,604	70,006
60c	Total capital RWA	69,653	68,828	68,623	68,966	68,800	70,233
<b>Capital ratios</b>							
61	Common Equity Tier 1 (as a percentage of risk weighted assets)	10.8%	10.6%	10.1%	9.9%	9.8%	9.7%
62	Tier 1 (as a percentage of risk weighted assets)	14.2%	14.1%	13.5%	13.3%	12.9%	12.8%
63	Total capital (as a percentage of risk weighted assets)	14.5%	15.9%	15.3%	15.1%	14.8%	14.2%
64	Institution-specific buffer requirement (minimum CET1 requirement plus capital conservation buffer plus G-SIB buffer requirement plus D-SIB buffer requirement expressed as a percentage of risk weighted assets)	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
67	of which: G-SIB buffer requirement	na	na	na	na	na	na
67a	of which: D-SIBs buffer requirement	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk weighted assets)	10.8%	10.6%	10.1%	9.9%	9.8%	9.7%
<b>OSFI all-in target</b>							
69	Common Equity Tier 1 all-in target ratio	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
70	Tier 1 capital all-in target ratio	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%
71	Total capital all-in target ratio	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%
<b>Amounts below the thresholds for deduction (before risk weighting)</b>							
72	Non-significant investments in the capital of other financial institutions	317	232	238	234	255	198
73	Significant investments in the common stock of financial institutions	238	257	245	229	278	321
75	Deferred tax assets arising from temporary differences (net of related tax liabilities)	61	22	54	31	24	467
<b>Applicable caps on the inclusion of allowances in Tier 2</b>							
76	Allowance eligible for inclusion in Tier 2 in respect of exposures subject to standardised approach (prior to application of cap)	55	58	62	65	51	33
77	Cap on inclusion of allowances in Tier 2 under standardised approach	72	72	78	81	58	66
78	Allowance eligible for inclusion in Tier 2 in respect of exposures subject to internal ratings-based approach (prior to application of cap) <sup>(2)</sup>	149	175	167	171	224	–
79	Cap on inclusion of allowances in Tier 2 under internal ratings-based approach	312	301	305	304	310	317
<b>Capital instruments subject to phase-out arrangements (only applicable between Jan 1, 2018 and Jan 1, 2022)</b>							
82	Current cap on AT1 instruments subject to phase out arrangements	968	968	1,162	1,162	1,162	1,162
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	–	–	–	–	–	–
84	Current cap on T2 instruments subject to phase out arrangements	1,191	1,191	1,429	1,429	1,429	1,429
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	–	–	–	–	–	–
<b>Transitional Capital Disclosure Template</b>		<b>Transitional basis</b>					
29	Common Equity Tier 1 capital (CET1)	8,009	7,809	7,928	7,819	7,710	7,769
45	Tier 1 capital (T1 = CET1 + AT1)	10,074	9,876	9,660	9,554	9,296	9,355
59	Total capital (TC = T1 + T2)	10,289	11,120	10,900	10,801	10,580	10,395
60	Total risk weighted assets	70,428	69,567	70,524	70,132	69,947	71,468
61	Common Equity Tier 1 (as a percentage of risk weighted assets)	11.4%	11.2%	11.2%	11.2%	11.0%	10.9%
62	Tier 1 (as a percentage of risk weighted assets)	14.3%	14.2%	13.7%	13.6%	13.3%	13.1%
63	Total capital (as a percentage of risk weighted assets)	14.6%	16.0%	15.5%	15.4%	15.1%	14.6%

(1) As requested by the Office of the Superintendent of Financial Institutions (Canada) (OSFI), all the Domestic Systemically Important Banks (D-SIBs) in Canada must fully apply the Basel III deductions and must disclose the all-in-ratios.

(2) During the second quarter of 2016, a \$250 million (\$183 million net of income taxes) sectoral provision for credit losses was recorded for producers and service companies in the oil and gas sector.

## Leverage Ratio under Basel III

(unaudited) (millions of Canadian dollars)

		2017		2016			
		Q2	Q1	Q4	Q3	Q2	Q1
<b>Accounting assets vs. leverage ratio exposure – Transitional basis</b>							
1	Total consolidated assets as per published financial statements	239,020	234,119	232,206	229,896	220,734	219,301
2	Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	(90)	(60)	(72)	(76)	(89)	(53)
3	Adjustment for fiduciary assets recognised on the balance sheet pursuant to the operative accounting framework but excluded from the leverage ratio exposure measure	-	-	-	-	-	-
4	Adjustment for derivative financial instruments <sup>(1)</sup>	2,280	1,621	725	1,348	1,091	567
5	Adjustment for securities financing transactions <sup>(1)</sup>	3,408	3,062	2,587	1,220	1,832	1,826
6	Adjustment for off balance-sheet items	22,644	22,048	21,937	20,294	19,996	19,599
7	Other adjustments	(4,674)	(3,950)	(3,888)	(4,010)	(3,767)	(3,968)
8	<b>Leverage Ratio Exposure (transitional basis)</b>	<b>262,588</b>	<b>256,840</b>	<b>253,495</b>	<b>248,672</b>	<b>239,797</b>	<b>237,272</b>

<b>Leverage ratio common disclosure</b>							
<b>On-balance sheet exposures</b>							
1	On-balance sheet items (excluding derivatives, SFTs and grandfathered securitization exposures but including collateral)	210,621	208,226	206,283	202,407	193,238	188,359
2	(Asset amounts deducted in determining Basel III transitional Tier 1 capital)	(2,592)	(2,304)	(2,402)	(2,421)	(2,301)	(2,238)
3	<b>Total on-balance sheet exposures (excluding derivatives and SFTs) (sum of lines 1 and 2)</b>	<b>208,029</b>	<b>205,922</b>	<b>203,881</b>	<b>199,986</b>	<b>190,937</b>	<b>186,121</b>
<b>Derivative exposures</b>							
4	Replacement cost associated with all derivative transactions (i.e., net of eligible cash variation margin)	3,974	4,405	4,755	4,828	6,337	7,318
5	Add-on amounts for PFE associated with all derivative transactions	7,044	6,624	6,386	6,417	6,272	6,262
6	Gross up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the operative accounting framework	-	-	-	-	-	-
7	(Deductions of receivables assets for cash variation margin provided in derivative transactions)	-	-	-	-	-	-
8	(Exempted CCP-leg of client cleared trade exposures)	-	-	-	-	-	-
9	Adjusted effective notional amount of written credit derivatives	7	-	-	1,046	663	518
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	-	-	-	-	-	-
11	<b>Total derivative exposures (sum of lines 4 to 10)</b>	<b>11,025</b>	<b>11,029</b>	<b>11,141</b>	<b>12,291</b>	<b>13,272</b>	<b>14,098</b>
<b>Securities financing transaction exposures</b>							
12	Gross SFT assets recognised for accounting purposes (with no recognition of netting), after adjusting for sale accounting transactions	17,481	14,779	13,948	14,880	13,760	15,628
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	(583)	(815)	(314)	(1,270)	(246)	(337)
14	Counterparty credit risk (CCR) exposure for SFTs	3,990	3,877	2,901	2,490	2,078	2,163
15	Agent transaction exposures	-	-	-	-	-	-
16	<b>Total securities financing transaction exposures (sum of lines 12 to 15)</b>	<b>20,888</b>	<b>17,841</b>	<b>16,535</b>	<b>16,100</b>	<b>15,592</b>	<b>17,454</b>
<b>Other off-balance sheet exposures</b>							
17	Off-balance sheet exposure at gross notional amount	63,451	61,284	60,191	57,378	57,018	55,485
18	(Adjustments for conversion to credit equivalent amounts)	(40,807)	(39,236)	(38,253)	(37,084)	(37,022)	(35,886)
19	<b>Off-balance sheet items (sum of lines 17 and 18)</b>	<b>22,644</b>	<b>22,048</b>	<b>21,938</b>	<b>20,294</b>	<b>19,996</b>	<b>19,599</b>
<b>Capital and Total Exposures - Transitional Basis</b>							
20	<b>Tier 1 capital</b>	<b>10,074</b>	<b>9,876</b>	<b>9,660</b>	<b>9,554</b>	<b>9,296</b>	<b>9,355</b>
21	<b>Total Exposures (sum of lines 3, 11, 16 and 19)</b>	<b>262,586</b>	<b>256,840</b>	<b>253,495</b>	<b>248,671</b>	<b>239,797</b>	<b>237,272</b>
<b>Leverage Ratio – Transitional Basis</b>							
22	<b>Basel III leverage ratio</b>	<b>3.8%</b>	<b>3.8%</b>	<b>3.8%</b>	<b>3.8%</b>	<b>3.9%</b>	<b>3.9%</b>
<b>All-in basis (Required by OSFI)</b>							
23	<b>Tier 1 capital – All-in basis</b>	<b>9,871</b>	<b>9,668</b>	<b>9,265</b>	<b>9,158</b>	<b>8,880</b>	<b>8,954</b>
24	(Regulatory adjustments)	(2,798)	(2,814)	(2,800)	(2,816)	(2,697)	(2,604)
25	<b>Total Exposures</b>	<b>262,382</b>	<b>256,330</b>	<b>253,097</b>	<b>248,276</b>	<b>239,401</b>	<b>236,906</b>
26	<b>Leverage ratio – All-in basis</b>	<b>3.8%</b>	<b>3.8%</b>	<b>3.7%</b>	<b>3.7%</b>	<b>3.7%</b>	<b>3.8%</b>

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

# Reconciliation between Financial Accounting and Regulatory Capital Balance Sheets <sup>(1)</sup>

(unaudited) (millions of Canadian dollars)	Q2 2017				
	Cross - Reference to Definition of Capital <sup>(2)</sup>	As In Report to Shareholders	Deconsolidation of Insurance <sup>(3)</sup> and other entities <sup>(4)</sup>	Under regulatory scope of consolidation	Of which
<b>Assets</b>					
Cash and deposits with financial institutions		9,770	-	9,770	
Securities		65,093	11,438	76,531	
Assets purchased under reverse repurchase agreements and securities borrowed		17,481	-	17,481	
<b>Loans</b>					
Residential mortgage		49,672	(27,279)	22,393	
Personal and credit card		35,442	(1,389)	34,053	
Business and government		39,481	-	39,481	
Customers' liability under acceptances		5,932	-	5,932	
Less: Allowances for credit losses		(762)	-	(762)	
Allowances reflected in Tier 2 regulatory capital <sup>(5)</sup>	t				(204)
Shortfall of allowances to expected loss	i				-
Allowances not reflected in regulatory capital					(558)
<b>Other assets</b>					
Derivative financial instruments		8,746	-	8,746	
Other		8,165	(68)	8,097	
Goodwill	e				1,677
Intangibles assets	f				1,174
<b>Deferred tax assets</b>					546
Deferred tax assets excluding those arising from temporary differences	g				-
Deferred tax assets arising from temporary differences exceeding regulatory thresholds	o				-
Deferred tax assets - realize through loss carrybacks					485
Deferred tax assets - other temporary differences					61
Defined-benefit pension fund net assets	k				10
<b>Significant Investments in other financial institutions</b>					238
Significant investments exceeding regulatory thresholds	m + n				-
Significant investments not exceeding regulatory thresholds					238
Other					4,451
<b>Total assets</b>		<b>239,020</b>	<b>(17,298)</b>	<b>221,722</b>	
<b>Liabilities</b>					
Deposits		151,160	-	151,160	
Derivatives financial instruments		6,657	-	6,657	
Other liabilities		68,510	(17,298)	51,212	
Gains and losses due to changes in own credit risk on fair value liabilities	j				(25)
<b>Deferred tax liabilities</b>					159
Related to goodwill	w				-
Related to intangibles	x				158
Related to pensions	y				3
Other deferred tax liabilities					(2)
Other					51,078
Subordinated debt		10	-	10	
Regulatory capital amortization of maturing debentures					-
Fair value-adjustment and unamortized issuance cost					-
<b>Subordinated debentures used for regulatory capital</b>					10
Allowed for inclusion in Tier 2 capital	r				-
Subject to phase out	r'				10
Ineligible additional Tier 2 capital					-
Excluded from Tier 2 capital due to cap					-
<b>Total liabilities</b>		<b>226,337</b>	<b>(17,298)</b>	<b>209,039</b>	
<b>Equity Attributable to Shareholders</b>		11,885	-	11,885	
Common shares	a				2,793
Contributed surplus	a'				57
Retained Earnings	b				7,164
<b>Accumulated Other Comprehensive Income (loss)</b>	c				221
Net gains (losses) on instruments designated as cash flow hedges	h				91
Other					130
<b>Preferred shares</b>					1,650
Allowed for inclusion in additional Tier 1 capital	v				1,450
Subject to phase out	v'				200
Ineligible additional Tier 1 capital					-
Excluded from additional Tier 1 capital due to cap					-
Non-controlling interests		798	(18)	780	
<b>Innovative Instruments</b>					769
Allowed for inclusion in additional Tier 1 capital					-
Subject to phase out	p'				750
Excluded from additional Tier 1 capital due to cap					-
Other					19
<b>Portion allowed for inclusion into CET1</b>	d				7
<b>Portion allowed for inclusion into Tier 1 capital</b>	q				2
<b>Portion allowed for inclusion into Tier 2 capital</b>	s				2
<b>Portion not allowed for regulatory capital</b>					-
<b>Total Equity</b>		<b>12,683</b>	<b>(18)</b>	<b>12,665</b>	
<b>Total Liabilities and Equity</b>		<b>239,020</b>	<b>(17,316)</b>	<b>221,704</b>	

(1) The basis of consolidation used for financial accounting purposes, described in note 1 to the 2016 Annual Report audited consolidated financial statements, may differ from regulatory purposes.

The regulatory consolidation does not include structured entities, where significant risk has been transferred to third parties nor subsidiaries and associates engaged in insurance activities.

(2) The references identify balance sheet components which are used in calculation of regulatory capital on page 4.

(3) Total assets related to insurance activities and National Bank Life Insurance Company, and other are \$176 million and \$18 million respectively.

(4) The amount is mainly due to securitization entities. For more information on structured entities, please see pages 178 to 181 of the 2016 Annual Report.

(5) During the second quarter of 2016, a \$250 million (\$183 million net of income taxes) sectoral provision for credit losses was recorded for producers and service companies in the oil and gas sector.

# Capital Adequacy under Basel III<sup>(1)</sup>

(unaudited) (millions of Canadian dollars)	2017						2016				
	Exposure at default	Q2				Capital requirement <sup>(2)</sup>	Q1	Q4	Q3	Q2	Q1
		Risk-weighted assets									
	Standardized	AIRB Approach	Other	Total							
<b>Credit risk</b>											
Retail											
Residential mortgages	44,734	868	4,604	–	5,472	438	5,392	5,455	5,448	5,027	5,265
Qualifying revolving retail	5,844	–	1,190	–	1,190	95	1,155	1,178	1,227	1,152	1,011
Other retail	16,448	2,486	5,115	–	7,601	608	7,280	6,823	6,874	6,705	6,692
Non-retail											
Corporate	61,585	1,673	26,137	–	27,810	2,225	27,226	27,393	26,001	26,869	27,196
Sovereign	26,813	264	627	–	891	71	857	875	849	580	658
Financial institutions	5,164	241	1,398	–	1,639	131	1,473	1,574	1,371	1,315	1,209
Banking book equity <sup>(3)</sup>	872	–	872	–	872	70	886	875	866	834	835
Securitization	4,836	–	402	–	402	32	304	831	785	781	795
Other assets	24,583	–	–	3,232	3,232	259	3,137	3,176	3,458	3,256	3,587
<b>Counterparty credit risk</b>											
Corporate	13,603	57	181	–	238	19	209	347	119	91	94
Sovereign	35,374	–	32	–	32	3	33	34	18	17	14
Financial institutions	52,533	–	510	–	510	41	436	402	1,683	1,204	1,415
Trading portfolio	9,129	192	1,991	–	2,183	175	2,190	2,345	2,496	2,659	2,897
Credit valuation adjustment charge <sup>(4)</sup>		2,159	–	–	2,159	173	2,030	2,055	2,145	2,090	2,423
Regulatory scaling factor		–	2,624	–	2,624	210	2,540	2,540	2,508	2,570	2,593
<b>Total - Credit risk</b>	<b>301,518</b>	<b>7,940</b>	<b>45,683</b>	<b>3,232</b>	<b>56,855</b>	<b>4,550</b>	<b>55,148</b>	<b>55,903</b>	<b>55,848</b>	<b>55,150</b>	<b>56,684</b>
<b>Market risk</b>											
VaR		–	962	–	962	77	1,340	1,014	1,097	1,319	1,266
Stressed VaR		–	1,086	–	1,086	87	1,632	1,067	1,512	1,972	1,707
Interest-rate specific risk		720	–	–	720	58	843	726	682	680	806
<b>Total - Market risk</b>		<b>720</b>	<b>2,048</b>	<b>–</b>	<b>2,768</b>	<b>222</b>	<b>3,815</b>	<b>2,807</b>	<b>3,291</b>	<b>3,971</b>	<b>3,779</b>
<b>Operational risk</b>		<b>9,760</b>	<b>–</b>	<b>–</b>	<b>9,760</b>	<b>781</b>	<b>9,611</b>	<b>9,495</b>	<b>9,391</b>	<b>9,254</b>	<b>9,278</b>
<b>Total</b>	<b>301,518</b>	<b>18,420</b>	<b>47,731</b>	<b>3,232</b>	<b>69,383</b>	<b>5,553</b>	<b>68,574</b>	<b>68,205</b>	<b>68,530</b>	<b>68,375</b>	<b>69,741</b>
<b>Capital ratio under Basel III</b>											
Common Equity Tier 1 (CET1)					10.8%		10.6%	10.1%	9.9%	9.8%	9.7%
Tier 1					14.2%		14.1%	13.5%	13.3%	12.9%	12.8%
Total					14.5%		15.9%	15.3%	15.1%	14.8%	14.2%
<b>Leverage ratio under Basel III</b>					3.8%		3.8%	3.7%	3.7%	3.7%	3.8%

(1) Figures are presented in an "all-in" basis.

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

(3) Calculated using the simple risk-weight method.

(4) Calculated based on CET1 risk-weighted assets.





## Risk-Weighted Assets Movement by Key Drivers<sup>(1)</sup>

(unaudited) (millions of Canadian dollars)	2017				2016			
	Q2			Q1	Q4	Q3	Q2	Q1
	Non-counterparty credit risk	Counterparty credit risk <sup>(2)</sup>	Total	Total	Total	Total	Total	Total
<b>Credit risk – Risk-weighted assets at beginning</b>	50,250	4,898	55,148	55,903	55,848	55,150	56,684	55,743
Book size	850	39	889	455	640	(414)	(368)	631
Book quality	70	106	176	(832)	68	(135)	(41)	(411)
Model updates	–	–	–	–	(954)	–	8	–
Methodology and policy	–	–	–	–	–	–	–	–
Acquisitions and disposals	–	–	–	–	–	790	–	–
Foreign exchange movements	563	79	642	(378)	301	457	(1,133)	721
<b>Credit risk – Risk-weighted assets at end</b>	<b>51,733</b>	<b>5,122</b>	<b>56,855</b>	<b>55,148</b>	<b>55,903</b>	<b>55,848</b>	<b>55,150</b>	<b>56,684</b>
<b>Market risk – Risk-weighted assets at beginning</b>			<b>3,815</b>	<b>2,807</b>	<b>3,291</b>	<b>3,971</b>	<b>3,779</b>	<b>3,965</b>
Movement in risk levels <sup>(3)</sup>			(1,047)	1,008	(484)	(680)	192	(186)
Model updates			–	–	–	–	–	–
Methodology and policy			–	–	–	–	–	–
Acquisitions and disposals			–	–	–	–	–	–
<b>Market risk – Risk-weighted assets at end</b>			<b>2,768</b>	<b>3,815</b>	<b>2,807</b>	<b>3,291</b>	<b>3,971</b>	<b>3,779</b>
<b>Operational risk – Risk-weighted assets at beginning</b>			<b>9,611</b>	<b>9,495</b>	<b>9,391</b>	<b>9,254</b>	<b>9,278</b>	<b>9,127</b>
Movement in risk levels			149	116	104	137	(24)	151
Acquisitions and disposals			–	–	–	–	–	–
<b>Operational risk – Risk-weighted assets at end</b>			<b>9,760</b>	<b>9,611</b>	<b>9,495</b>	<b>9,391</b>	<b>9,254</b>	<b>9,278</b>
<b>Risk-weighted assets at end</b>			<b>69,383</b>	<b>68,574</b>	<b>68,205</b>	<b>68,530</b>	<b>68,375</b>	<b>69,741</b>

(1) Figures are presented in an "all-in" basis.

(2) Calculated based on CET1 risk-weighted assets.

(3) Also includes foreign exchange movements that are not considered material.



## Reconciliation of Balance Sheet with Credit Risk Exposures

(unaudited) (millions of Canadian dollars)	Q2 2017							
	Exposures subject to credit risk capital					Other exposures		Balance sheet
	Drawn		Other exposures			Subject to market risk capital	All other <sup>(1)</sup>	
	Non-retail	Retail	Securitization	Repo-style transactions	Derivatives financial instruments			
<b>Assets</b>								
Cash and deposits with financial institutions <sup>(2)</sup>	9,107	-	-	-	-		663	9,770
Securities								
At fair value through profit or loss	8,463	-	-	-	-	38,533	-	46,996
Available-for-sale	10,536	-	-	-	-	-	126	10,662
Held-to-maturity	7,435	-	-	-	-	-	-	7,435
	26,434	-	-	-	-	38,533	126	65,093
Securities purchased under reverse repurchase agreements and securities borrowed	-	-	-	17,481	-	-	-	17,481
<b>Loans</b>								
Residential mortgage <sup>(3)</sup>	30,656	19,016	-	-	-	-	-	49,672
Personal and credit card	-	34,053	1,389	-	-	-	-	35,442
Business and government	37,633	1,848	-	-	-	-	-	39,481
	68,289	54,917	1,389	-	-	-	-	124,595
Customers' liability under acceptances	5,932	-	-	-	-	-	-	5,932
Allowance for credit losses <sup>(4)</sup>	(154)	(34)	-	-	-	-	(574)	(762)
	74,067	54,883	1,389	-	-	-	(574)	129,765
<b>Other</b>								
Derivative financial instruments <sup>(2)</sup>	-	-	-	-	8,746	-	-	8,746
Purchase receivables	-	974	-	-	-	-	749	1,723
Investments in associates and joint ventures	-	-	-	-	-	-	652	652
Premises and equipment	-	459	-	-	-	-	484	943
Goodwill	-	-	-	-	-	-	1,418	1,418
Intangible assets	-	-	-	-	-	-	1,174	1,174
Other assets	-	-	-	-	-	-	2,255	2,255
	-	1,433	-	-	8,746	-	6,732	16,911
	<b>109,608</b>	<b>56,316</b>	<b>1,389</b>	<b>17,481</b>	<b>8,746</b>	<b>38,533</b>	<b>6,947</b>	<b>239,020</b>

(1) Includes deconsolidated assets related to insurance activities and all other assets that are neither subject to credit nor market risks.

(2) These exposures may also be subject to market risk.

(3) As per Basel definition, NHA MBS pooled and 5 units or more mortgages are included in the non-retail category.

(4) During the second quarter of 2016, a \$250 million (\$183 million net of income taxes) sectoral provision for credit losses was recorded for producers and service companies in the oil and gas sector.



## Standardized Credit Risk Exposure Under the Basel Asset Categories and by Risk Weight <sup>(1)</sup>

(unaudited) (millions of Canadian dollars)	2017																2016							
	Q2								Q1								Q4							
	0%	20%	35%	50%	75%	100%	150%	Total	0%	20%	35%	50%	75%	100%	150%	Total	0%	20%	35%	50%	75%	100%	150%	Total
<b>Retail</b>																								
Residential mortgage	-	-	1,673	25	460	83	-	2,241	-	-	1,511	27	470	83	-	2,091	47	-	1,598	27	311	87	-	2,070
Other retail	-	-	-	-	5,948	-	-	5,948	-	-	-	-	5,748	-	-	5,748	-	-	-	-	5,189	-	-	5,189
	-	-	<b>1,673</b>	<b>25</b>	<b>6,408</b>	<b>83</b>	-	<b>8,189</b>	-	-	<b>1,511</b>	<b>27</b>	<b>6,218</b>	<b>83</b>	-	<b>7,839</b>	<b>47</b>	-	<b>1,598</b>	<b>27</b>	<b>5,500</b>	<b>87</b>	-	<b>7,259</b>
<b>Non-Retail</b>																								
Corporate	-	-	-	-	-	4,555	-	4,555	-	-	-	-	-	4,897	-	4,897	-	50	-	-	-	5,105	-	5,155
Sovereign	362	-	-	33	-	249	-	644	312	-	-	26	-	212	-	550	396	-	-	-	-	223	-	619
Financial Institutions	-	349	-	-	-	150	13	512	-	310	-	-	-	122	15	447	-	266	-	-	-	228	16	510
	<b>362</b>	<b>349</b>	-	<b>33</b>	-	<b>4,954</b>	<b>13</b>	<b>5,711</b>	<b>312</b>	<b>310</b>	-	<b>26</b>	-	<b>5,231</b>	<b>15</b>	<b>5,894</b>	<b>396</b>	<b>316</b>	-	-	-	<b>5,556</b>	<b>16</b>	<b>6,284</b>
<b>Trading</b>	<b>11</b>	-	-	-	-	<b>202</b>	-	<b>213</b>	<b>11</b>	-	-	-	-	<b>106</b>	-	<b>117</b>	<b>10</b>	-	-	-	-	<b>249</b>	-	<b>259</b>
<b>Total</b>	<b>373</b>	<b>349</b>	<b>1,673</b>	<b>58</b>	<b>6,408</b>	<b>5,239</b>	<b>13</b>	<b>14,113</b>	<b>323</b>	<b>310</b>	<b>1,511</b>	<b>53</b>	<b>6,218</b>	<b>5,420</b>	<b>15</b>	<b>13,850</b>	<b>453</b>	<b>316</b>	<b>1,598</b>	<b>27</b>	<b>5,500</b>	<b>5,892</b>	<b>16</b>	<b>13,802</b>

(unaudited) (millions of Canadian dollars)	2016																							
	Q3								Q2								Q1							
	0%	20%	35%	50%	75%	100%	150%	Total	0%	20%	35%	50%	75%	100%	150%	Total	0%	20%	35%	50%	75%	100%	150%	Total
<b>Retail</b>																								
Residential mortgage	-	-	2,148	14	268	92	-	2,522	-	-	959	14	278	89	-	1,340	-	-	815	15	279	75	-	1,184
Other retail	-	-	-	-	5,200	-	-	5,200	-	-	-	-	5,061	-	-	5,061	-	-	-	-	5,385	-	-	5,385
	-	-	<b>2,148</b>	<b>14</b>	<b>5,468</b>	<b>92</b>	-	<b>7,722</b>	-	-	<b>959</b>	<b>14</b>	<b>5,339</b>	<b>89</b>	-	<b>6,401</b>	-	-	<b>815</b>	<b>15</b>	<b>5,664</b>	<b>75</b>	-	<b>6,569</b>
<b>Non-Retail</b>																								
Corporate	-	-	-	-	-	4,911	-	4,911	-	-	-	-	-	4,557	1	4,558	-	-	-	-	-	4,408	1	4,409
Sovereign	255	-	-	-	-	193	-	448	358	-	-	-	-	-	358	187	-	-	-	-	-	-	-	187
Financial Institutions	-	499	-	-	-	215	30	744	-	555	-	-	-	42	-	597	-	608	-	-	-	47	-	655
	<b>255</b>	<b>499</b>	-	-	-	<b>5,319</b>	<b>30</b>	<b>6,103</b>	<b>358</b>	<b>555</b>	-	-	-	<b>4,599</b>	<b>1</b>	<b>5,513</b>	<b>187</b>	<b>608</b>	-	-	-	<b>4,455</b>	<b>1</b>	<b>5,251</b>
<b>Trading</b>	<b>9</b>	-	-	-	-	<b>221</b>	-	<b>230</b>	<b>6</b>	-	-	-	-	<b>506</b>	-	<b>512</b>	-	-	-	-	-	<b>579</b>	-	<b>579</b>
<b>Total</b>	<b>264</b>	<b>499</b>	<b>2,148</b>	<b>14</b>	<b>5,468</b>	<b>5,632</b>	<b>30</b>	<b>14,055</b>	<b>364</b>	<b>555</b>	<b>959</b>	<b>14</b>	<b>5,339</b>	<b>5,194</b>	<b>1</b>	<b>12,426</b>	<b>187</b>	<b>608</b>	<b>815</b>	<b>15</b>	<b>5,664</b>	<b>5,109</b>	<b>1</b>	<b>12,399</b>

(1) Exposure amounts are the expected gross exposure upon the default of an obligor. These amounts are net of specific allowance but do not reflect the impact of credit risk mitigation and collateral held.

## Maximum Credit Risk Exposure Under the Basel Asset Categories<sup>(1)</sup>

(unaudited) (millions of Canadian dollars)	2017												2016					
	Q2						Q1						Q4					
	Drawn	Undrawn commitments	Repo-style transactions	OTC derivatives	Other off-balance sheet items	Total	Drawn	Undrawn commitments	Repo-style transactions	OTC derivatives	Other off-balance sheet items	Total	Drawn	Undrawn commitments	Repo-style transactions	OTC derivatives	Other off-balance sheet items	Total
<b>Retail</b>																		
Residential mortgage	38,588	6,146	–	–	–	44,734	38,696	6,124	–	–	–	44,820	40,600	5,978	–	–	–	46,578
Qualifying revolving retail	2,772	3,072	–	–	–	5,844	2,719	2,914	–	–	–	5,633	2,795	2,921	–	–	–	5,716
Other retail	14,990	1,370	–	–	88	16,448	14,585	1,334	–	–	88	16,007	13,980	1,301	–	–	93	15,374
	<b>56,350</b>	<b>10,588</b>	<b>–</b>	<b>–</b>	<b>88</b>	<b>67,026</b>	<b>56,000</b>	<b>10,372</b>	<b>–</b>	<b>–</b>	<b>88</b>	<b>66,460</b>	<b>57,375</b>	<b>10,200</b>	<b>–</b>	<b>–</b>	<b>93</b>	<b>67,668</b>
<b>Non-retail</b>																		
Corporate	42,130	16,610	13,583	20	2,845	75,188	41,001	15,607	14,313	15	2,833	73,769	40,956	14,416	14,418	27	2,890	72,707
Sovereign	22,962	3,712	35,058	316	139	62,187	23,401	3,945	35,413	305	131	63,195	23,068	3,623	30,559	328	135	57,713
Financial Institutions	4,214	227	52,107	426	723	57,697	4,214	199	43,963	456	688	49,520	4,074	252	36,835	324	609	42,094
	<b>69,306</b>	<b>20,549</b>	<b>100,748</b>	<b>762</b>	<b>3,707</b>	<b>195,072</b>	<b>68,616</b>	<b>19,751</b>	<b>93,689</b>	<b>776</b>	<b>3,652</b>	<b>186,484</b>	<b>68,098</b>	<b>18,291</b>	<b>81,812</b>	<b>679</b>	<b>3,634</b>	<b>172,514</b>
Trading book	–	–	–	9,129	–	9,129	–	–	–	–	–	9,174	–	–	–	–	9,623	–
Securitization	–	–	–	–	4,836	4,836	–	–	–	–	–	3,732	616	–	–	–	–	4,068
<b>Total - Gross Credit Risk</b>	<b>125,656</b>	<b>31,137</b>	<b>100,748</b>	<b>9,891</b>	<b>8,631</b>	<b>276,063</b>	<b>124,616</b>	<b>30,123</b>	<b>93,689</b>	<b>9,950</b>	<b>7,472</b>	<b>265,850</b>	<b>126,089</b>	<b>28,491</b>	<b>81,812</b>	<b>10,302</b>	<b>7,179</b>	<b>253,873</b>
<b>Standardized Approach</b>	<b>10,968</b>	<b>76</b>	<b>2,354</b>	<b>230</b>	<b>485</b>	<b>14,113</b>	<b>10,799</b>	<b>71</b>	<b>2,378</b>	<b>126</b>	<b>476</b>	<b>13,850</b>	<b>10,458</b>	<b>277</b>	<b>2,294</b>	<b>282</b>	<b>491</b>	<b>13,802</b>
<b>AIRB Approach<sup>(2)</sup></b>	<b>114,688</b>	<b>31,061</b>	<b>98,394</b>	<b>9,661</b>	<b>8,146</b>	<b>261,950</b>	<b>113,817</b>	<b>30,052</b>	<b>91,311</b>	<b>9,824</b>	<b>6,996</b>	<b>252,000</b>	<b>115,631</b>	<b>28,214</b>	<b>79,518</b>	<b>10,020</b>	<b>6,688</b>	<b>240,071</b>
<b>Total - Gross Credit Risk</b>	<b>125,656</b>	<b>31,137</b>	<b>100,748</b>	<b>9,891</b>	<b>8,631</b>	<b>276,063</b>	<b>124,616</b>	<b>30,123</b>	<b>93,689</b>	<b>9,950</b>	<b>7,472</b>	<b>265,850</b>	<b>126,089</b>	<b>28,491</b>	<b>81,812</b>	<b>10,302</b>	<b>7,179</b>	<b>253,873</b>
<b>Adjustment to exposure for collateral</b>																		
Standardized Approach	–	–	(2,309)	(10)	–	(2,319)	–	–	(2,320)	(5)	–	(2,325)	–	–	(2,152)	(36)	–	(2,188)
AIRB Approach <sup>(2)</sup>	–	–	(92,119)	–	–	(92,119)	–	–	(85,152)	–	–	(85,152)	–	–	(74,517)	–	–	(74,517)
<b>Total - Net Credit Risk</b>	<b>125,656</b>	<b>31,137</b>	<b>6,320</b>	<b>9,881</b>	<b>8,631</b>	<b>181,625</b>	<b>124,616</b>	<b>30,123</b>	<b>6,217</b>	<b>9,945</b>	<b>7,472</b>	<b>178,373</b>	<b>126,089</b>	<b>28,491</b>	<b>5,143</b>	<b>10,266</b>	<b>7,179</b>	<b>177,168</b>

  

(unaudited) (millions of Canadian dollars)	2016												2015					
	Q3						Q2						Q1					
	Drawn	Undrawn commitments	Repo-style transactions	OTC derivatives	Other off-balance sheet items	Total	Drawn	Undrawn commitments	Repo-style transactions	OTC derivatives	Other off-balance sheet items	Total	Drawn	Undrawn commitments	Repo-style transactions	OTC derivatives	Other off-balance sheet items	Total
<b>Retail</b>																		
Residential mortgage	41,590	5,977	–	–	–	47,567	38,577	5,859	–	–	–	44,436	39,234	5,785	–	–	–	45,019
Qualifying revolving retail	2,763	2,929	–	–	–	5,692	2,688	2,754	–	–	–	5,442	2,660	2,445	–	–	–	5,105
Other retail	14,014	1,279	–	–	13	15,306	13,709	1,253	–	–	13	14,975	13,892	1,304	–	–	13	15,209
	<b>58,367</b>	<b>10,185</b>	<b>–</b>	<b>–</b>	<b>13</b>	<b>68,565</b>	<b>54,974</b>	<b>9,866</b>	<b>–</b>	<b>–</b>	<b>13</b>	<b>64,853</b>	<b>55,786</b>	<b>9,534</b>	<b>–</b>	<b>–</b>	<b>13</b>	<b>65,333</b>
<b>Non-retail</b>																		
Corporate	41,348	13,376	6,842	11	2,824	64,401	40,855	13,360	4,588	7	2,710	61,520	40,053	13,283	5,142	6	2,592	61,076
Sovereign	24,345	3,592	14,956	301	108	43,302	19,032	3,829	12,175	321	107	35,464	21,927	3,923	9,779	306	132	36,067
Financial Institutions	3,398	347	58,296	463	558	63,062	3,793	344	50,981	640	633	56,391	3,468	301	52,256	541	662	57,228
	<b>69,091</b>	<b>17,315</b>	<b>80,094</b>	<b>775</b>	<b>3,490</b>	<b>170,765</b>	<b>63,680</b>	<b>17,533</b>	<b>67,744</b>	<b>968</b>	<b>3,450</b>	<b>153,375</b>	<b>65,448</b>	<b>17,507</b>	<b>67,177</b>	<b>853</b>	<b>3,386</b>	<b>154,371</b>
Trading book	–	–	–	9,683	–	9,683	–	–	–	–	–	10,607	–	–	–	–	11,428	–
Securitization	636	–	–	–	2,541	3,177	634	–	–	–	–	2,444	647	–	–	–	–	2,958
<b>Total - Gross Credit Risk</b>	<b>128,094</b>	<b>27,500</b>	<b>80,094</b>	<b>10,458</b>	<b>6,044</b>	<b>252,190</b>	<b>119,288</b>	<b>27,399</b>	<b>67,744</b>	<b>11,575</b>	<b>5,907</b>	<b>231,913</b>	<b>121,881</b>	<b>27,041</b>	<b>67,177</b>	<b>12,281</b>	<b>5,710</b>	<b>234,090</b>
<b>Standardized Approach</b>	<b>10,851</b>	<b>455</b>	<b>2,058</b>	<b>238</b>	<b>453</b>	<b>14,055</b>	<b>9,295</b>	<b>407</b>	<b>1,796</b>	<b>518</b>	<b>410</b>	<b>12,426</b>	<b>9,588</b>	<b>419</b>	<b>1,406</b>	<b>585</b>	<b>401</b>	<b>12,399</b>
<b>AIRB Approach<sup>(2)</sup></b>	<b>117,243</b>	<b>27,045</b>	<b>78,036</b>	<b>10,220</b>	<b>5,591</b>	<b>238,135</b>	<b>109,993</b>	<b>26,992</b>	<b>65,948</b>	<b>11,057</b>	<b>5,497</b>	<b>219,487</b>	<b>112,293</b>	<b>26,622</b>	<b>65,771</b>	<b>11,696</b>	<b>5,309</b>	<b>221,691</b>
<b>Total - Gross Credit Risk</b>	<b>128,094</b>	<b>27,500</b>	<b>80,094</b>	<b>10,458</b>	<b>6,044</b>	<b>252,190</b>	<b>119,288</b>	<b>27,399</b>	<b>67,744</b>	<b>11,575</b>	<b>5,907</b>	<b>231,913</b>	<b>121,881</b>	<b>27,041</b>	<b>67,177</b>	<b>12,281</b>	<b>5,710</b>	<b>234,090</b>
<b>Adjustment to exposure for collateral</b>																		
Standardized Approach	–	–	(2,000)	(32)	–	(2,032)	–	–	(1,764)	(400)	–	(2,164)	–	–	(1,379)	(369)	–	(1,748)
AIRB Approach <sup>(2)</sup>	–	–	(66,866)	–	–	(66,866)	–	–	(56,595)	–	–	(56,595)	–	–	(55,798)	–	–	(55,798)
<b>Total - Net Credit Risk</b>	<b>128,094</b>	<b>27,500</b>	<b>11,228</b>	<b>10,426</b>	<b>6,044</b>	<b>183,292</b>	<b>119,288</b>	<b>27,399</b>	<b>9,385</b>	<b>11,175</b>	<b>5,907</b>	<b>173,154</b>	<b>121,881</b>	<b>27,041</b>	<b>10,000</b>	<b>11,912</b>	<b>5,710</b>	<b>176,544</b>

(1) These amounts do not take into account allowances for credit losses nor amounts pledged as collateral. The tables also exclude equity securities.  
(2) For drawn, undrawn and Other off-balance sheet exposures, eligible financial collateral is taken into account in the Bank's Loss Given Default (LGD) models.

## Credit Quality of AIRB Exposure - Retail Portfolios<sup>(1)</sup>

			2017								
			Q2								
(unaudited) (millions of Canadian dollars)			EAD	Notional of undrawn commitments	Exposure weighted-average (EAD %)	Exposure weighted-average (PD %)	Exposure weighted-average (LGD %)	Exposure weighted-average risk weight asset (RWA %)	RWA	Expected Losses (EL)	EL adjusted average risk weight % <sup>(2)</sup>
<b>Canadian residential mortgage and HELOCs</b>	<b>Risk Grade</b>	<b>PD bands</b>									
<b>Insured Drawn and Undrawn<sup>(3)</sup></b>	Exceptionally low	0.000% - 0.144%	841	–	100%	0.07%	17.5%	3.1%	26	0.1	3%
	Very low	0.145% - 0.506%	864	–	100%	0.30%	10.1%	5.0%	43	0.2	5%
	Low	0.507% - 1.116%	498	–	100%	0.77%	5.4%	5.5%	27	0.2	6%
	Low	1.117% - 2.681%	331	–	100%	1.74%	3.4%	5.9%	20	0.2	7%
	Medium	2.682% - 9.348%	201	–	100%	4.60%	2.7%	8.3%	17	0.2	10%
	High	9.349% - 99.99%	96	–	100%	28.06%	2.6%	13.8%	13	0.8	23%
	Default	100.00%	68	–	100%	100.00%	2.7%	24.5%	17	1.0	43%
				<b>2,899</b>	<b>–</b>	<b>100%</b>	<b>4.04%</b>	<b>9.7%</b>	<b>5.6%</b>	<b>163</b>	<b>2.7</b>
<b>Uninsured Undrawn<sup>(4)</sup></b>	Exceptionally low	0.000% - 0.144%	4,257	9,902	56%	0.05%	22.5%	3.1%	133	0.5	3%
	Very low	0.145% - 0.506%	1,667	3,877	71%	0.26%	23.5%	11.4%	190	1.0	12%
	Low	0.507% - 1.116%	150	181	86%	0.71%	24.1%	23.9%	36	0.3	26%
	Low	1.117% - 2.681%	35	42	85%	1.63%	24.1%	41.2%	14	0.1	46%
	Medium	2.682% - 9.348%	11	13	84%	4.03%	23.9%	69.4%	7	0.1	81%
	High	9.349% - 99.99%	1	1	91%	16.70%	25.0%	131.2%	2	0.1	186%
	Default	100.00%	1	2	76%	100.00%	23.9%	298.1%	4	–	298%
				<b>6,122</b>	<b>14,018</b>	<b>61%</b>	<b>0.17%</b>	<b>22.8%</b>	<b>6.3%</b>	<b>386</b>	<b>2.1</b>
<b>Uninsured Drawn<sup>(5)</sup></b>	Exceptionally low	0.000% - 0.144%	16,729			0.07%	22.7%	4.1%	680	2.7	4%
	Very low	0.145% - 0.506%	12,186			0.27%	25.4%	12.5%	1,527	8.3	13%
	Low	0.507% - 1.116%	3,022			0.72%	25.5%	25.5%	770	5.5	28%
	Low	1.117% - 2.681%	889			1.69%	25.7%	44.9%	400	3.9	50%
	Medium	2.682% - 9.348%	432			4.63%	25.5%	79.1%	342	5.1	94%
	High	9.349% - 99.99%	158			25.89%	26.6%	141.8%	224	11.1	229%
	Default	100.00%	56			100.00%	25.9%	200.9%	112	8.6	393%
				<b>33,472</b>			<b>0.59%</b>	<b>24.1%</b>	<b>12.1%</b>	<b>4,055</b>	<b>45.2</b>
<b>Qualifying revolving credit</b>	Exceptionally low	0.000% - 0.144%	3,015	5,270	59%	0.05%	72.3%	2.4%	72	1.1	3%
	Very low	0.145% - 0.506%	1,087	868	80%	0.29%	74.4%	10.6%	115	2.3	13%
	Low	0.507% - 1.116%	646	292	90%	0.78%	73.1%	23.0%	149	3.7	30%
	Low	1.117% - 2.681%	591	183	96%	1.79%	79.5%	47.0%	278	8.4	65%
	Medium	2.682% - 9.348%	404	53	102%	4.53%	80.0%	89.1%	361	14.5	134%
	High	9.349% - 99.99%	79	4	103%	21.90%	75.8%	190.0%	151	14.1	410%
	Default	100.00%	22	–	105%	100.00%	59.6%	299.1%	64	10.0	881%
				<b>5,844</b>	<b>6,670</b>	<b>74%</b>	<b>1.33%</b>	<b>74.1%</b>	<b>20.4%</b>	<b>1,190</b>	<b>54.1</b>
<b>Other retail<sup>(6)</sup></b>	Exceptionally low	0.000% - 0.144%	2,344	1,584	83%	0.07%	42.1%	7.3%	171	0.6	8%
	Very low	0.145% - 0.506%	2,916	425	97%	0.30%	53.3%	27.8%	812	4.7	30%
	Low	0.507% - 1.116%	2,443	309	98%	0.78%	61.4%	55.5%	1,356	11.8	62%
	Low	1.117% - 2.681%	1,691	122	98%	1.73%	65.3%	80.2%	1,357	19.2	94%
	Medium	2.682% - 9.348%	810	57	98%	4.38%	64.0%	92.9%	752	22.6	128%
	High	9.349% - 99.99%	190	6	99%	20.66%	63.6%	137.5%	261	25.5	305%
	Default	100.00%	106	4	99%	100.00%	58.4%	382.0%	406	35.0	794%
				<b>10,500</b>	<b>2,507</b>	<b>94%</b>	<b>2.28%</b>	<b>55.7%</b>	<b>48.7%</b>	<b>5,115</b>	<b>119.4</b>
			<b>58,837</b>	<b>23,195</b>	<b>86%</b>	<b>1.09%</b>	<b>33.9%</b>	<b>18.5%</b>	<b>10,909</b>	<b>223.5</b>	<b>23%</b>

(1) Represents retail exposures under the AIRB approach. Amounts are before allowance for credit losses and after credit risk mitigation.

(2) EL adjusted average risk weight is calculated as  $(RWA + 12.5 \times EL) / EAD$ .

(3) Includes insured drawn and undrawn retail mortgages and home equity lines of credit.

(4) Includes only uninsured undrawn retail mortgages and home equity lines of credit.

(5) Includes only uninsured drawn retail mortgages and home equity lines of credit.

(6) Includes all other drawn and undrawn retail exposures.

## Credit Quality of AIRB Exposure - Retail Portfolios<sup>(1)</sup>

			2017								
			Q1								
			EAD	Notional of undrawn commitments	Exposure weighted-average (EAD %)	Exposure weighted-average (PD %)	Exposure weighted-average (LGD %)	Exposure weighted-average risk weight asset (RWA %)	RWA	Expected Losses (EL)	EL adjusted average risk weight % <sup>(2)</sup>
Canadian residential mortgage and HELOCs	Risk Grade	PD bands									
Insured Drawn and Undrawn <sup>(3)</sup>	Exceptionally low	0.000% - 0.144%	1,035	–	100%	0.07%	17.4%	3.1%	32	0.1	3%
	Very low	0.145% - 0.506%	1,254	–	100%	0.30%	10.0%	5.1%	65	0.4	5%
	Low	0.507% - 1.116%	698	–	100%	0.77%	5.4%	5.5%	38	0.3	6%
	Low	1.117% - 2.681%	397	–	100%	1.73%	3.5%	6.1%	24	0.2	7%
	Medium	2.682% - 9.348%	234	–	100%	4.67%	2.7%	8.3%	19	0.3	10%
	High	9.349% - 99.99%	107	–	100%	27.58%	2.6%	13.9%	15	0.8	23%
	Default	100.00%	71	–	100%	100.00%	2.7%	25.0%	18	1.1	44%
				<b>3,796</b>	<b>–</b>	<b>100%</b>	<b>3.38%</b>	<b>9.7%</b>	<b>5.6%</b>	<b>211</b>	<b>3.2</b>
Uninsured Undrawn <sup>(4)</sup>	Exceptionally low	0.000% - 0.144%	4,171	9,737	56%	0.05%	22.5%	3.1%	130	0.5	3%
	Very low	0.145% - 0.506%	1,707	3,892	72%	0.26%	23.4%	11.4%	194	1.1	12%
	Low	0.507% - 1.116%	173	205	88%	0.71%	24.1%	24.0%	41	0.3	26%
	Low	1.117% - 2.681%	35	45	84%	1.63%	23.9%	41.1%	15	0.1	46%
	Medium	2.682% - 9.348%	10	14	81%	4.14%	23.6%	69.2%	7	0.1	81%
	High	9.349% - 99.99%	1	2	82%	15.07%	23.7%	121.4%	2	–	168%
	Default	100.00%	2	3	75%	100.00%	23.3%	291.5%	6	–	292%
				<b>6,099</b>	<b>13,898</b>	<b>62%</b>	<b>0.18%</b>	<b>22.8%</b>	<b>6.5%</b>	<b>395</b>	<b>2.1</b>
Uninsured Drawn <sup>(5)</sup>	Exceptionally low	0.000% - 0.144%	16,004			0.07%	22.7%	4.1%	651	2.6	4%
	Very low	0.145% - 0.506%	12,291			0.27%	25.3%	12.6%	1,551	8.5	13%
	Low	0.507% - 1.116%	3,045			0.72%	25.4%	25.4%	772	5.6	28%
	Low	1.117% - 2.681%	837			1.68%	25.5%	44.3%	371	3.6	50%
	Medium	2.682% - 9.348%	426			4.71%	25.4%	79.3%	338	5.1	94%
	High	9.349% - 99.99%	171			26.61%	26.5%	141.5%	242	12.1	231%
	Default	100.00%	60			100.00%	26.3%	201.9%	122	9.9	406%
				<b>32,834</b>			<b>0.63%</b>	<b>24.0%</b>	<b>12.3%</b>	<b>4,047</b>	<b>47.4</b>
Qualifying revolving credit	Exceptionally low	0.000% - 0.144%	2,874	5,085	58%	0.05%	71.8%	2.4%	68	1.0	3%
	Very low	0.145% - 0.506%	1,049	814	81%	0.29%	74.1%	10.5%	111	2.2	13%
	Low	0.507% - 1.116%	634	279	90%	0.78%	73.2%	23.1%	146	3.6	30%
	Low	1.117% - 2.681%	583	170	96%	1.79%	78.7%	46.6%	272	8.3	64%
	Medium	2.682% - 9.348%	392	51	102%	4.50%	79.6%	88.5%	347	14.0	133%
	High	9.349% - 99.99%	80	4	103%	21.17%	74.8%	186.7%	149	13.3	396%
	Default	100.00%	21	–	105%	100.00%	59.4%	295.1%	62	9.9	880%
				<b>5,633</b>	<b>6,403</b>	<b>74%</b>	<b>1.34%</b>	<b>73.7%</b>	<b>20.5%</b>	<b>1,155</b>	<b>52.3</b>
Other retail <sup>(6)</sup>	Exceptionally low	0.000% - 0.144%	2,281	1,549	83%	0.07%	42.1%	7.3%	165	0.6	8%
	Very low	0.145% - 0.506%	2,890	396	97%	0.30%	50.7%	26.5%	767	4.5	28%
	Low	0.507% - 1.116%	2,380	308	98%	0.78%	61.0%	55.2%	1,314	11.5	61%
	Low	1.117% - 2.681%	1,615	118	98%	1.71%	65.0%	79.7%	1,286	18.1	94%
	Medium	2.682% - 9.348%	791	59	98%	4.43%	64.0%	93.0%	735	22.3	128%
	High	9.349% - 99.99%	193	7	99%	21.35%	65.1%	140.6%	272	27.1	316%
	Default	100.00%	109	3	99%	100.00%	57.8%	384.4%	418	34.1	777%
				<b>10,259</b>	<b>2,440</b>	<b>94%</b>	<b>2.35%</b>	<b>54.8%</b>	<b>48.3%</b>	<b>4,957</b>	<b>118.2</b>
			<b>58,621</b>	<b>22,741</b>	<b>86%</b>	<b>1.13%</b>	<b>33.1%</b>	<b>18.4%</b>	<b>10,765</b>	<b>223.2</b>	<b>23%</b>

(1) Represents retail exposures under the AIRB approach. Amounts are before allowance for credit losses and after credit risk mitigation.

(2) EL adjusted average risk weight is calculated as  $(RWA + 12.5 \times EL) / EAD$ .

(3) Includes insured drawn and undrawn retail mortgages and home equity lines of credit.

(4) Includes only uninsured undrawn retail mortgages and home equity lines of credit.

(5) Includes only uninsured drawn retail mortgages and home equity lines of credit.

(6) Includes all other drawn and undrawn retail exposures.

# AIRB Credit Risk Exposure: Non-retail Portfolios<sup>(1)</sup>

(unaudited) (millions of Canadian dollars)

		Q2 2017										Q1 2017							
		Corporate AIRB exposures by Internal PD grade																	
Internal Ratings grades	PD Range 0.000%	S&P rating equivalent				EAD Amount Total	Average PD (%)	Average LGD (%)	RWA	Percentage RWA (%)				EAD Amount Total	Average PD (%)	Average LGD (%)	RWA	Percentage RWA (%)	
			Drawn	Undrawn	Other						Drawn	Undrawn	Other						
1	0.000 - 0.035	AAA... AA-	36	19	40	95	0.03%	39.3%	6	6%	43	20	65	128	0.03%	36.2%	6	5%	
1.5	0.035 - 0.044	A+	63	6	387	456	0.04%	42.4%	26	6%	55	11	369	435	0.04%	40.0%	24	6%	
2	0.044 - 0.063	A	146	577	618	1,341	0.05%	52.9%	257	19%	661	583	1,411	0.05%	51.5%	262	19%		
2.5	0.063 - 0.103	A-	1,269	1,281	266	2,816	0.08%	48.5%	647	23%	1,381	1,151	268	2,800	0.08%	50.0%	626	22%	
3	0.103 - 0.170	BBB+	3,897	2,834	480	7,211	0.13%	39.5%	1,883	26%	3,730	2,427	403	6,560	0.13%	39.6%	1,792	27%	
3.5	0.170 - 0.280	BBB	6,841	4,133	426	11,400	0.22%	40.8%	3,918	34%	6,003	4,070	611	10,684	0.22%	40.9%	3,722	35%	
4	0.280 - 0.462	BBB-	6,774	3,469	566	10,809	0.36%	34.2%	4,125	38%	7,048	2,789	508	10,345	0.36%	34.5%	3,949	38%	
4.5	0.462 - 0.762	BB+	6,212	1,545	194	7,951	0.59%	35.8%	3,394	43%	5,376	1,423	196	6,995	0.59%	35.9%	2,976	43%	
5	0.762 - 1.256	BB	6,637	1,253	390	8,280	0.98%	34.8%	4,236	51%	6,894	1,528	292	8,714	0.98%	36.2%	4,673	54%	
5.5	1.256 - 2.070	BB-	3,148	622	93	3,863	1.61%	36.2%	2,536	66%	3,195	664	58	3,917	1.61%	34.9%	2,478	63%	
6	2.070 - 3.412	B+	2,257	391	59	2,707	2.66%	33.7%	1,926	71%	2,285	519	63	2,867	2.66%	33.8%	2,073	72%	
6.5	3.412 - 5.625	B	1,478	187	151	1,816	4.38%	34.8%	1,877	103%	1,122	247	169	1,538	4.38%	28.8%	1,161	75%	
7	5.625 - 9.272	B-	694	205	8	907	7.22%	31.2%	882	97%	710	83	9	802	7.22%	28.2%	668	83%	
7.5	9.272 - 15.284	CCC+	268	29	6	303	11.90%	23.4%	248	82%	241	33	3	277	11.90%	27.2%	278	100%	
8	15.284 - 25.195	CCC	37	5	-	42	19.62%	30.4%	51	121%	68	11	-	79	19.62%	41.1%	130	165%	
8.5	25.195 - 100	CCC-	35	1	1	37	32.35%	43.0%	70	189%	22	1	1	24	32.35%	39.5%	42	175%	
9	100	CC	309	1	-	310	100.00%	26.9%	236	76%	326	3	3	332	100.00%	25.6%	698	210%	
9.5	100	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	100	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>			<b>40,101</b>	<b>16,558</b>	<b>3,685</b>	<b>60,344</b>	<b>1.25%</b>	<b>37.5%</b>	<b>26,318</b>	<b>44%</b>	<b>38,666</b>	<b>15,563</b>	<b>3,679</b>	<b>57,908</b>	<b>1.27%</b>	<b>37.6%</b>	<b>25,558</b>	<b>44%</b>	

		Q2 2017										Q1 2017							
		Sovereign AIRB exposures by Internal PD grade																	
Internal Ratings grades	PD Range 0.000%	S&P rating equivalent				EAD Amount Total	Average PD (%)	Average LGD (%)	RWA	Percentage RWA (%)				EAD Amount Total	Average PD (%)	Average LGD (%)	RWA	Percentage RWA (%)	
			Drawn	Undrawn	Other						Drawn	Undrawn	Other						
1	0.000 - 0.010	AAA... AA-	15,759	295	940	16,994	0.01%	5.9%	149	1%	16,215	78	1,165	17,458	0.01%	6.2%	149	1%	
1.5	0.010 - 0.019	A+	4,605	2,646	848	8,099	0.01%	13.0%	229	3%	4,664	3,076	1,169	8,909	0.01%	12.9%	239	3%	
2	0.019 - 0.033	A	1,685	712	150	2,547	0.03%	17.8%	121	5%	1,690	763	72	2,525	0.02%	17.8%	122	5%	
2.5	0.033 - 0.060	A-	8	1	287	296	0.05%	10.8%	4	1%	8	1	7	16	0.04%	16.6%	1	6%	
3	0.060 - 0.107	BBB+	-	-	623	623	0.08%	0.1%	17	3%	-	-	885	885	0.08%	11.3%	21	2%	
3.5	0.107 - 0.191	BBB	-	-	7	7	0.14%	11.6%	-	-	-	-	1	1	0.14%	11.6%	-	-	
4	0.191 - 0.342	BBB-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.5	0.342 - 0.612	BB+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	0.612 - 1.095	BB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.5	1.095 - 1.960	BB-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	1.960 - 3.507	B+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.5	3.507 - 6.276	B	245	57	12	314	4.69%	14.1%	127	40%	257	27	12	296	4.69%	14.1%	120	41%	
7	6.276 - 11.231	B-	17	-	17	17	8.40%	18.5%	12	71%	18	-	-	18	8.40%	18.5%	12	67%	
7.5	11.231 - 20.099	CCC+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	20.099 - 35.967	CCC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.5	35.967 - 100	CCC-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	100	CC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.5	100	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	100	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>			<b>22,319</b>	<b>3,711</b>	<b>2,867</b>	<b>28,897</b>	<b>0.05%</b>	<b>9.2%</b>	<b>659</b>	<b>2%</b>	<b>22,852</b>	<b>3,945</b>	<b>3,311</b>	<b>30,108</b>	<b>0.04%</b>	<b>9.4%</b>	<b>664</b>	<b>2%</b>	

		Q2 2017										Q1 2017							
		Financial Institutions AIRB exposures by Internal PD grade																	
Internal Ratings grades	PD Range 0.000%	S&P rating equivalent				EAD Amount Total	Average PD (%)	Average LGD (%)	RWA	Percentage RWA (%)				EAD Amount Total	Average PD (%)	Average LGD (%)	RWA	Percentage RWA (%)	
			Drawn	Undrawn	Other						Drawn	Undrawn	Other						
1	0.000 - 0.035	AAA... AA-	706	-	303	1,009	0.03%	39.6%	111	11%	1,079	332	1,411	0.03%	43.9%	164	12%		
1.5	0.035 - 0.044	A+	433	-	1,515	1,948	0.04%	44.0%	159	8%	334	-	1,756	2,090	0.04%	43.9%	166	8%	
2	0.044 - 0.063	A	371	-	330	701	0.05%	42.7%	109	16%	286	30	287	603	0.05%	39.4%	96	16%	
2.5	0.063 - 0.103	A-	244	30	1,043	1,317	0.08%	36.4%	164	12%	190	-	293	483	0.08%	41.0%	81	17%	
3	0.103 - 0.170	BBB+	115	-	201	316	0.13%	48.8%	88	28%	31	-	145	176	0.13%	49.9%	47	27%	
3.5	0.170 - 0.280	BBB	1,092	-	11	1,103	0.22%	13.7%	133	12%	1,272	-	83	1,355	0.22%	19.5%	226	17%	
4	0.280 - 0.462	BBB-	222	153	217	592	0.36%	39.8%	259	44%	126	150	155	431	0.36%	34.4%	158	37%	
4.5	0.462 - 0.762	BB+	427	37	65	529	0.59%	49.7%	346	65%	354	10	63	427	0.59%	49.4%	278	65%	
5	0.762 - 1.256	BB	353	7	54	414	0.98%	55.6%	433	105%	340	9	58	407	0.98%	55.3%	423	104%	
5.5	1.256 - 2.070	BB-	-	-	24	24	1.61%	50.8%	24	100%	-	-	13	13	1.61%	51.0%	12	92%	
6	2.070 - 3.412	B+	19	-	-	19	2.66%	49.6%	27	142%	-	-	1	1	2.66%	40.2%	1	100%	
6.5	3.412 - 5.625	B	28	-	2	30	4.38%	56.7%	55	183%	26	-	26	26	4.38%	57.0%	50	192%	
7	5.625 - 9.272	B-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.5	9.272 - 15.284	CCC+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	15.284 - 25.195	CCC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.5	25.195 - 100	CCC-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	100	CC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.5	100	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	100	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>			<b>4,010</b>	<b>227</b>	<b>3,765</b>	<b>8,002</b>	<b>0.19%</b>	<b>38.8%</b>	<b>1,908</b>	<b>24%</b>	<b>4,038</b>	<b>199</b>	<b>3,186</b>	<b>7,423</b>	<b>0.21%</b>	<b>39.8%</b>	<b>1,702</b>	<b>23%</b>	

Credit commitments - AIRB Non-retail portfolios	Q2 2017	
	Notional undrawn commitments	EAD on undrawn commitments <sup>(2)</sup>
Corporate	41,730	16,558
Sovereign	8,980	3,711
Financial Institutions	454	227
<b>Total</b>	<b>51,164</b>	<b>20,496</b>

Credit commitments - AIRB Non-retail portfolios	Q1 2017	
	Notional undrawn commitments	EAD on undrawn commitments <sup>(2)</sup>
Corporate	39,453	15,563
Sovereign	8,908	3,945
Financial Institutions	398	199
<b>Total</b>	<b>48,759</b>	<b>19,707</b>

(1) The data presented above take into account permissible netting and exclude SME-Retail Portfolio, trading related portfolio and Equity.  
(2) EAD undrawn commitments are the undrawn commitments (notional amount) that is currently undrawn but expected to be drawn in the event of a default.





# AIRB Credit Risk Exposure - Back-Testing<sup>(1)</sup>

	2017											
	Q2						Q1					
	Average estimated (PD %)	Actual default rate (%)	Average estimated (LGD %) <sup>(2)</sup>	Actual (LGD %) <sup>(3)</sup>	Estimated (EAD %) <sup>(4)</sup>	Actual (EAD %) <sup>(4)</sup>	Average estimated (PD %)	Actual default rate (%)	Average estimated (LGD %) <sup>(2)</sup>	Actual (LGD %) <sup>(3)</sup>	Estimated (EAD %) <sup>(4)</sup>	Actual (EAD %) <sup>(4)</sup>
<i>(unaudited)</i> (millions of Canadian dollars)												
<b>Retail portfolio<sup>(5)</sup></b>												
Uninsured residential mortgages incl. Home equity line of credit <sup>(6)</sup>	0.43%	0.19%	26.10%	11.12%	99.39%	82.34%	0.38%	0.19%	26.61%	12.02%	98.12%	81.17%
Insured residential mortgages <sup>(7)</sup>	1.33%	0.82%	3.30%	na	na	na	1.36%	0.82%	2.93%	na	na	na
Qualifying revolving retail	1.36%	1.25%	72.91%	81.85%	98.49%	97.02%	1.34%	1.27%	71.13%	78.11%	98.63%	96.83%
Other retail	1.79%	1.55%	70.74%	58.88%	97.47%	91.15%	1.79%	1.57%	71.36%	59.02%	97.22%	91.55%
<b>Wholesale &amp; Sovereign portfolio<sup>(8)</sup></b>												
Corporate	2.13%	0.45%	40.11%	18.41%	85.63%	76.01%	1.47%	0.44%	41.68%	21.97%	83.75%	75.54%
Sovereign <sup>(9)</sup>	0.04%	0.00%	11.54%	na	81.00%	na	0.04%	0.00%	11.54%	na	81.00%	na
Financial Institutions <sup>(9)</sup>	0.55%	0.00%	39.00%	na	100.00%	na	0.58%	0.00%	39.00%	na	100.00%	na

	2016											
	Q4						Q3					
	Average estimated (PD %)	Actual default rate (%)	Average estimated (LGD %) <sup>(2)</sup>	Actual (LGD %) <sup>(3)</sup>	Estimated (EAD %) <sup>(4)</sup>	Actual (EAD %) <sup>(4)</sup>	Average estimated (PD %)	Actual default rate (%)	Average estimated (LGD %) <sup>(2)</sup>	Actual (LGD %) <sup>(3)</sup>	Estimated (EAD %) <sup>(4)</sup>	Actual (EAD %) <sup>(4)</sup>
<i>(unaudited)</i> (millions of Canadian dollars)												
<b>Retail portfolio<sup>(5)</sup></b>												
Uninsured residential mortgages incl. Home equity line of credit <sup>(6)</sup>	0.38%	0.18%	26.58%	9.13%	97.44%	79.62%	0.41%	0.18%	27.34%	9.83%	96.97%	80.40%
Insured residential mortgages <sup>(7)</sup>	1.34%	0.88%	2.91%	na	na	na	1.37%	0.89%	2.87%	na	na	na
Qualifying revolving retail	1.28%	1.29%	73.72%	77.14%	98.43%	96.71%	1.30%	1.29%	71.98%	77.59%	99.05%	97.27%
Other retail	1.70%	1.63%	71.01%	66.61%	97.50%	92.43%	1.81%	1.62%	70.54%	61.39%	97.51%	95.51%
<b>Wholesale &amp; Sovereign portfolio<sup>(8)</sup></b>												
Corporate	1.66%	0.44%	43.26%	19.08%	81.65%	76.47%	1.69%	0.47%	42.38%	23.65%	81.86%	77.95%
Sovereign <sup>(9)</sup>	0.04%	0.00%	11.54%	na	81.00%	na	0.04%	0.00%	11.54%	na	81.00%	na
Financial Institutions <sup>(9)</sup>	0.60%	0.00%	39.00%	na	100.00%	na	0.63%	0.00%	39.00%	na	100.00%	na

- (1) Actual and estimated parameters are reported on a three-month lag. For example, for Q2 2017, estimated percentages are as of January 31, 2016 and actual percentages reflect experience in the following 12 months.
- (2) Estimated LGD reflects loss estimates under a downturn economic scenario and is based on defaulted accounts.
- (3) Actual LGD includes indirect costs and discount rate and is based on defaulted accounts on which recovery process is completed.
- (4) Estimated and actual EAD are computed for revolving products only and are based on defaulted accounts.
- (5) Retail PD and EAD are based on account weighted average whilst retail LGD is based on exposure weighted average.
- (6) Actual and estimated EAD for residential mortgage is computed only for Home equity lines of credit since the conventional residential mortgages are non-revolving.
- (7) Actual LGD for insured residential mortgages is n/a to reflect the credit risk mitigation from government backed entities.
- (8) Wholesale and Sovereign's PD is based on borrower weighted average whilst the LGD and EAD are based on facility weighted average.
- (9) Actual LGD for the Financial Institutions and Sovereign are na because no defaulted facilities recovery were completed during the period. Actual EAD are na because no default was observed during the period.

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

(unaudited)  
(millions of Canadian dollars)

Non-Retail Portfolio	2017												2016					
	Q2						Q1						Q4					
	EAD - Gross Exposure <sup>(1)</sup>																	
	Drawn	Undrawn commitments	Other	Repo-style transactions	OTC Derivatives	Total	Drawn	Undrawn commitments	Other	Repo-style transactions	OTC Derivatives	Total	Drawn	Undrawn commitments	Other	Repo-style transactions	OTC Derivatives	Total
Agriculture	3,741	299	8	-	-	4,048	3,772	285	8	-	-	4,065	3,572	349	6	-	-	3,927
Oil and Gas	1,880	1,830	45	-	-	3,755	2,019	1,623	54	-	-	3,696	2,126	1,510	62	-	-	3,698
Mining	414	680	47	-	-	1,141	424	690	42	-	-	1,156	527	704	33	-	-	1,264
Utilities	2,543	1,656	465	-	-	4,664	2,302	1,711	471	-	-	4,484	2,093	1,638	465	-	-	4,196
Construction <sup>(2)</sup>	2,424	1,133	214	-	-	3,771	2,281	1,025	214	-	-	3,520	2,200	1,151	212	-	-	3,563
Manufacturing	4,022	2,218	231	-	-	6,471	3,730	2,221	214	-	-	6,165	3,516	2,065	231	-	-	5,812
Wholesale Trade	2,032	729	43	-	-	2,804	1,903	743	39	-	-	2,685	1,918	723	39	-	-	2,680
Retail Trade	2,744	1,687	42	-	-	4,473	2,765	1,615	43	-	-	4,423	2,790	913	45	-	-	3,748
Transportation	2,414	2,024	109	7	-	4,554	2,376	1,792	105	51	-	4,324	2,812	1,753	97	17	-	4,679
Communications	1,497	811	259	-	-	2,567	1,511	681	259	-	-	2,451	1,511	686	285	-	-	2,482
Finance and Insurance	21,698	2,014	886	82,368	748	107,714	22,259	1,829	919	76,261	774	102,042	22,090	1,440	865	66,450	679	91,524
Real Estate <sup>(3)</sup>	8,296	992	32	58	-	9,378	7,942	898	34	59	-	8,933	7,746	814	29	61	-	8,650
Professional Services	1,385	902	312	-	2	2,601	1,220	771	303	-	2	2,296	1,174	721	320	-	-	2,215
Education & Health Care	2,635	893	6	15	-	3,549	2,545	1,290	7	5	-	3,847	2,473	1,325	7	8	-	3,813
Other Services	4,277	1,242	281	189	-	5,989	4,511	1,106	275	7	-	5,899	4,485	1,193	294	3	-	5,975
Government	4,957	1,439	18	17,351	-	23,765	5,024	1,471	17	16,587	-	23,099	4,715	1,287	23	14,716	-	20,741
Other	2,347	-	709	760	12	3,828	2,032	-	648	719	-	3,399	2,350	19	621	557	-	3,547
<b>Total - Non-retail<sup>(4)</sup></b>	<b>69,306</b>	<b>20,549</b>	<b>3,707</b>	<b>100,748</b>	<b>762</b>	<b>195,072</b>	<b>68,616</b>	<b>19,751</b>	<b>3,652</b>	<b>93,689</b>	<b>776</b>	<b>186,484</b>	<b>68,098</b>	<b>18,291</b>	<b>3,634</b>	<b>81,812</b>	<b>679</b>	<b>172,514</b>

Non-Retail Portfolio	2016												2016					
	Q3						Q2						Q1					
	EAD - Gross Exposure <sup>(1)</sup>																	
	Drawn	Undrawn commitments	Other	Repo-style transactions	OTC Derivatives	Total	Drawn	Undrawn commitments	Other	Repo-style transactions	OTC Derivatives	Total	Drawn	Undrawn commitments	Other	Repo-style transactions	OTC Derivatives	Total
Agriculture	3,688	227	6	-	-	3,921	3,604	238	6	-	-	3,848	3,586	190	6	-	-	3,782
Oil and Gas	2,559	1,269	58	-	-	3,886	2,911	1,572	64	-	-	4,547	3,204	1,661	62	-	-	4,927
Mining	317	738	34	-	-	1,089	357	493	30	-	-	880	494	397	34	-	-	925
Utilities	2,240	1,660	452	-	-	4,352	2,071	1,901	380	-	-	4,352	1,979	1,944	374	-	-	4,297
Construction <sup>(2)</sup>	2,249	1,122	210	-	-	3,581	2,226	1,186	207	-	-	3,619	2,179	1,191	210	-	-	3,580
Manufacturing	3,765	1,921	258	-	-	5,944	3,615	1,968	250	-	-	5,833	3,641	2,125	266	-	-	6,032
Wholesale Trade	1,832	652	46	-	-	2,530	1,819	628	53	-	-	2,500	1,735	634	55	-	-	2,424
Retail Trade	2,695	1,106	45	-	-	3,846	3,159	785	46	-	-	3,990	3,094	851	51	-	-	3,996
Transportation	2,426	1,631	94	-	-	4,151	1,886	1,596	75	-	-	3,557	2,062	1,573	79	-	-	3,714
Communications	1,467	652	283	-	-	2,402	1,416	631	279	-	-	2,326	1,321	522	288	-	-	2,131
Finance and Insurance	23,136	1,311	751	75,497	775	101,470	18,142	1,328	767	64,283	968	85,488	19,801	1,568	671	66,444	852	89,336
Real Estate <sup>(3)</sup>	7,669	697	27	72	-	8,465	7,595	675	30	70	-	8,370	7,914	587	32	59	-	8,592
Professional Services	1,137	730	330	-	-	2,197	1,069	662	348	-	-	2,079	943	715	352	-	-	2,010
Education & Health Care	2,524	1,224	7	-	-	3,755	2,526	1,506	6	-	-	4,038	2,758	1,073	7	-	-	3,838
Other Services	4,336	1,056	220	-	-	5,612	4,102	1,094	295	1,175	-	6,666	4,049	1,077	286	-	-	5,412
Government	4,657	1,170	17	4,525	-	10,369	4,939	1,153	14	2,216	-	8,322	4,314	1,238	11	674	1	6,238
Other	2,394	149	652	-	-	3,195	2,243	117	600	-	-	2,960	2,374	161	602	-	-	3,137
<b>Total - Non-retail<sup>(4)</sup></b>	<b>69,091</b>	<b>17,315</b>	<b>3,490</b>	<b>80,094</b>	<b>775</b>	<b>170,765</b>	<b>63,680</b>	<b>17,533</b>	<b>3,450</b>	<b>67,744</b>	<b>968</b>	<b>153,375</b>	<b>65,448</b>	<b>17,507</b>	<b>3,386</b>	<b>67,177</b>	<b>853</b>	<b>154,371</b>

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

(2) Includes some public private partnership and project finance loans.

(3) Includes residential mortgages 5 units and more.

(4) This total excludes SME retail exposure.



## Gross Credit Risk Exposure at Default in Europe <sup>(1)</sup>

(unaudited) (millions of Canadian dollars)	2017											2016						
	Q2					Q1					Q4							
	Drawn	Undrawn commitments	Repo-style transactions <sup>(2)</sup>	OTC derivatives	Other off-balance sheet items <sup>(3)</sup>	Total	Drawn	Undrawn commitments	Repo-style transactions <sup>(2)</sup>	OTC derivatives	Other off-balance sheet items <sup>(3)</sup>	Total	Drawn	Undrawn commitments	Repo-style transactions <sup>(2)</sup>	OTC derivatives	Other off-balance sheet items <sup>(3)</sup>	Total
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ireland	–	–	854	2	–	856	13	–	1,102	3	–	1,118	–	–	1,183	2	–	1,185
Italy	–	–	–	–	1	1	–	–	–	–	1	–	–	–	–	–	1	1
Portugal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Spain	6	–	–	2	66	74	23	–	–	–	81	104	25	–	–	–	91	116
<b>Total GIIPS</b>	<b>6</b>	<b>–</b>	<b>854</b>	<b>4</b>	<b>67</b>	<b>931</b>	<b>36</b>	<b>–</b>	<b>1,102</b>	<b>3</b>	<b>82</b>	<b>1,223</b>	<b>25</b>	<b>–</b>	<b>1,183</b>	<b>2</b>	<b>–</b>	<b>1,302</b>
France	42	40	1,230	202	365	1,879	15	39	1,379	220	264	1,917	157	41	1,208	175	296	1,877
Germany	1	–	–	–	61	62	–	–	–	8	38	46	11	–	7	–	41	59
United Kingdom	216	6	14,228	1,122	4	15,576	235	5	4,647	918	5	5,810	57	5	2,377	961	4	3,404
Other Europe	42	–	2,403	130	16	2,591	34	–	1,702	151	16	1,903	45	–	1,661	155	19	1,880
<b>Total - Credit Risk</b>	<b>307</b>	<b>46</b>	<b>18,715</b>	<b>1,458</b>	<b>513</b>	<b>21,039</b>	<b>320</b>	<b>44</b>	<b>8,830</b>	<b>1,300</b>	<b>405</b>	<b>10,899</b>	<b>295</b>	<b>46</b>	<b>6,429</b>	<b>1,300</b>	<b>452</b>	<b>8,522</b>

Adjustment to exposure for collateral	Drawn	Undrawn commitments	Net Repo-Style transactions and OTC derivatives	Other off-balance sheet items <sup>(3)</sup>	Total	Drawn	Undrawn commitments	Net Repo-Style transactions and OTC derivatives	Other off-balance sheet items <sup>(3)</sup>	Total	Drawn	Undrawn commitments	Net Repo-Style transactions and OTC derivatives	Other off-balance sheet items <sup>(3)</sup>	Total
<b>Total - Net Credit Risk<sup>(4)</sup></b>	<b>307</b>	<b>46</b>	<b>1,699</b>	<b>513</b>	<b>2,565</b>	<b>320</b>	<b>44</b>	<b>2,126</b>	<b>405</b>	<b>2,895</b>	<b>295</b>	<b>46</b>	<b>1,684</b>	<b>452</b>	<b>2,477</b>

(unaudited) (millions of Canadian dollars)	2016											2015						
	Q3					Q2					Q1							
	Drawn	Undrawn commitments	Repo-style transactions <sup>(2)</sup>	OTC derivatives	Other off-balance sheet items <sup>(3)</sup>	Total	Drawn	Undrawn commitments	Repo-style transactions <sup>(2)</sup>	OTC derivatives	Other off-balance sheet items <sup>(3)</sup>	Total	Drawn	Undrawn commitments	Repo-style transactions <sup>(2)</sup>	OTC derivatives	Other off-balance sheet items <sup>(3)</sup>	Total
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ireland	–	–	1,675	3	–	1,678	–	–	1,503	1	–	1,504	1	–	865	1	–	867
Italy	–	–	–	–	1	1	–	–	–	–	1	1	–	–	–	–	1	1
Portugal	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Spain	20	–	–	–	90	110	25	–	–	–	132	157	25	–	–	–	134	159
<b>Total GIIPS</b>	<b>20</b>	<b>–</b>	<b>1,675</b>	<b>3</b>	<b>91</b>	<b>1,789</b>	<b>25</b>	<b>–</b>	<b>1,503</b>	<b>1</b>	<b>133</b>	<b>1,662</b>	<b>26</b>	<b>–</b>	<b>865</b>	<b>1</b>	<b>135</b>	<b>1,027</b>
France	54	33	1,210	261	292	1,850	21	–	154	91	285	551	98	–	1,254	250	285	1,887
Germany	1	–	–	16	51	68	–	–	–	38	51	89	4	–	27	–	57	88
United Kingdom	70	5	3,915	834	5	4,829	71	5	3,660	744	5	4,485	135	5	4,452	1,058	13	5,663
Other Europe	68	–	1,237	193	19	1,517	139	–	852	253	18	1,262	165	–	1,076	286	21	1,548
<b>Total - Credit Risk</b>	<b>213</b>	<b>38</b>	<b>8,037</b>	<b>1,307</b>	<b>458</b>	<b>10,053</b>	<b>256</b>	<b>5</b>	<b>6,169</b>	<b>1,127</b>	<b>492</b>	<b>8,049</b>	<b>428</b>	<b>5</b>	<b>7,647</b>	<b>1,622</b>	<b>511</b>	<b>10,213</b>

Adjustment to exposure for collateral	Drawn	Undrawn commitments	Net Repo-Style transactions and OTC derivatives	Other off-balance sheet items <sup>(3)</sup>	Total	Drawn	Undrawn commitments	Net Repo-Style transactions and OTC derivatives	Other off-balance sheet items <sup>(3)</sup>	Total	Drawn	Undrawn commitments	Net Repo-Style transactions and OTC derivatives	Other off-balance sheet items <sup>(3)</sup>	Total
<b>Total - Net Credit Risk<sup>(4)</sup></b>	<b>213</b>	<b>38</b>	<b>1,700</b>	<b>458</b>	<b>2,409</b>	<b>256</b>	<b>5</b>	<b>1,538</b>	<b>492</b>	<b>2,291</b>	<b>428</b>	<b>5</b>	<b>1,838</b>	<b>511</b>	<b>2,782</b>

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

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

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

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



## Formation of Gross Impaired Loans and Allowance for Credit Losses

(unaudited) (millions of Canadian dollars)	2017		2016				2015				YTD		Full Year	
Formation of Gross Impaired Loans <sup>(1)</sup> (by sector)	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	2017	2016	2016	2015
<b>Opening balance</b>	<b>442</b>	<b>492</b>	<b>452</b>	<b>521</b>	<b>434</b>	<b>457</b>	<b>449</b>	<b>446</b>	<b>389</b>	<b>486</b>	<b>492</b>	<b>457</b>	<b>457</b>	<b>486</b>
Write-offs														
Personal and Commercial														
Retail	(21)	(18)	(20)	(18)	(20)	(23)	(23)	(18)	(21)	(21)	(39)	(43)	(81)	(83)
Commercial	(33)	(10)	(19)	(66)	(5)	(20)	(11)	(16)	(15)	(62)	(43)	(25)	(110)	(104)
Wealth Management	(1)	(3)	(1)	(2)	(1)	(2)	(1)	(1)	(1)	(1)	(4)	(3)	(6)	(4)
Financial Markets	-	-	-	-	-	-	-	(6)	-	-	-	-	-	(6)
U.S. Specialty Finance and International														
ABA Bank <sup>(2)</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total write-offs</b>	<b>(55)</b>	<b>(31)</b>	<b>(40)</b>	<b>(86)</b>	<b>(26)</b>	<b>(45)</b>	<b>(35)</b>	<b>(41)</b>	<b>(37)</b>	<b>(84)</b>	<b>(86)</b>	<b>(71)</b>	<b>(197)</b>	<b>(197)</b>
Formation														
Personal and Commercial														
Retail	18	23	17	11	21	23	23	16	28	22	41	44	72	89
Commercial	14	(43)	60	6	89	(5)	19	24	65	(37)	(29)	84	150	71
Wealth Management	1	-	2	(1)	3	4	1	4	1	2	1	7	8	8
Financial Markets	-	-	-	-	-	-	-	-	-	-	-	-	-	-
U.S. Specialty Finance and International														
ABA Bank <sup>(2)</sup>	2	1	1	1	-	-	-	-	-	-	3	-	2	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total formation</b>	<b>35</b>	<b>(19)</b>	<b>80</b>	<b>17</b>	<b>113</b>	<b>22</b>	<b>43</b>	<b>44</b>	<b>94</b>	<b>(13)</b>	<b>16</b>	<b>135</b>	<b>232</b>	<b>168</b>
<b>Closing balance</b>	<b>422</b>	<b>442</b>	<b>492</b>	<b>452</b>	<b>521</b>	<b>434</b>	<b>457</b>	<b>449</b>	<b>446</b>	<b>389</b>	<b>422</b>	<b>521</b>	<b>492</b>	<b>457</b>

Formation of Gross Impaired Loans (by activity)	2017		2016				2015				YTD		Full Year	
	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	2017	2016	2016	2015
<b>Opening balance</b>	<b>442</b>	<b>492</b>	<b>452</b>	<b>521</b>	<b>434</b>	<b>457</b>	<b>449</b>	<b>446</b>	<b>389</b>	<b>486</b>	<b>492</b>	<b>457</b>	<b>457</b>	<b>486</b>
Classified as impaired during the period	192	79	190	204	211	145	135	149	187	107	271	356	750	578
Transferred to not impaired during the period	(5)	(5)	(4)	(6)	(6)	(3)	(5)	(7)	(8)	(3)	(10)	(9)	(19)	(23)
Net repayments	(121)	(60)	(80)	(158)	(66)	(91)	(64)	(78)	(62)	(100)	(181)	(157)	(395)	(304)
Write-offs	(82)	(54)	(59)	(104)	(45)	(64)	(53)	(60)	(54)	(97)	(136)	(109)	(272)	(264)
Recoveries of loans previously written off	(5)	(7)	(7)	(6)	(5)	(4)	(5)	(5)	(7)	(5)	(12)	(9)	(22)	(22)
Disposals of loans	-	-	-	-	-	-	-	-	-	(1)	-	-	-	(1)
Exchange and other movements	1	(3)	-	1	(2)	(6)	-	4	1	2	(2)	(8)	(7)	7
<b>Closing balance</b>	<b>422</b>	<b>442</b>	<b>492</b>	<b>452</b>	<b>521</b>	<b>434</b>	<b>457</b>	<b>449</b>	<b>446</b>	<b>389</b>	<b>422</b>	<b>521</b>	<b>492</b>	<b>457</b>

Allowance for Credit Losses	2017		2016				2015				YTD		Full Year	
	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	2017	2016	2016	2015
<b>Allowances at beginning</b>	<b>786</b>	<b>781</b>	<b>780</b>	<b>837</b>	<b>566</b>	<b>569</b>	<b>561</b>	<b>563</b>	<b>561</b>	<b>604</b>	<b>781</b>	<b>569</b>	<b>569</b>	<b>604</b>
Write-offs	(87)	(61)	(66)	(110)	(50)	(68)	(58)	(65)	(61)	(103)	(148)	(118)	(294)	(287)
Recoveries of amounts written off in previous years	7	6	7	8	5	5	5	6	5	5	13	10	25	21
Charge to income statement (provision for credit losses) <sup>(3)</sup>	56	60	59	45	317	63	61	56	57	54	116	380	484	228
Disposal of loans	-	-	-	-	-	-	-	-	-	1	-	-	-	1
Exchange and other movements	-	-	1	-	(1)	(3)	-	1	1	-	-	(4)	(3)	2
<b>Allowances at end</b>	<b>762</b>	<b>786</b>	<b>781</b>	<b>780</b>	<b>837</b>	<b>566</b>	<b>569</b>	<b>561</b>	<b>563</b>	<b>561</b>	<b>762</b>	<b>837</b>	<b>781</b>	<b>569</b>

(1) Credit card receivables are not included.

(2) The Bank completed the acquisition of Advanced Bank of Asia Limited (ABA Bank) during the third quarter of 2016.

(3) During the second quarter of 2017, the Bank reversed the sectoral provision on non-impaired loans for the oil and gas producer and service company loan portfolio by \$40 million.

The sectoral provision on non-impaired loans of \$250 million was recorded during the second quarter of 2016.

Moreover, during the second quarter of 2017, the Bank increased the collective allowance on non-impaired loans for credit risk by \$40 million related to growth in the Bank's overall credit portfolio.



## Gross Credit Exposure by Residual Contractual Maturity<sup>(1)</sup>

(unaudited) (millions of Canadian dollars)	2017								2016			
	Q2				Q1				Q4			
	Within 1 year	1 to 5 years	Over 5 years	Total	Within 1 year	1 to 5 years	Over 5 years	Total	Within 1 year	1 to 5 years	Over 5 years	Total
<b>Retail</b>												
Residential mortgages	26,504	15,725	264	42,493	26,437	16,037	255	42,729	27,348	16,855	305	44,508
Qualifying revolving retail	5,844	–	–	5,844	5,633	–	–	5,633	5,716	–	–	5,716
Other retail	5,279	2,941	2,280	10,500	5,232	2,844	2,183	10,259	5,181	2,837	2,167	10,185
	<b>37,627</b>	<b>18,666</b>	<b>2,544</b>	<b>58,837</b>	<b>37,302</b>	<b>18,881</b>	<b>2,438</b>	<b>58,621</b>	<b>38,245</b>	<b>19,692</b>	<b>2,472</b>	<b>60,409</b>
<b>Non-retail</b>												
Corporate	48,010	20,811	1,812	70,633	48,276	18,534	2,062	68,872	47,848	17,643	2,061	67,552
Sovereign	43,626	13,043	4,874	61,543	45,614	11,990	5,041	62,645	40,121	11,829	5,144	57,094
Financial Institutions	56,265	881	39	57,185	48,068	990	15	49,073	39,702	1,880	2	41,584
	<b>147,901</b>	<b>34,735</b>	<b>6,725</b>	<b>189,361</b>	<b>141,958</b>	<b>31,514</b>	<b>7,118</b>	<b>180,590</b>	<b>127,671</b>	<b>31,352</b>	<b>7,207</b>	<b>166,230</b>
<b>Trading book</b>	<b>1,589</b>	<b>4,439</b>	<b>2,888</b>	<b>8,916</b>	<b>1,410</b>	<b>4,736</b>	<b>2,911</b>	<b>9,057</b>	<b>1,322</b>	<b>4,847</b>	<b>3,195</b>	<b>9,364</b>
<b>Total</b>	<b>187,117</b>	<b>57,840</b>	<b>12,157</b>	<b>257,114</b>	<b>180,670</b>	<b>55,131</b>	<b>12,467</b>	<b>248,268</b>	<b>167,238</b>	<b>55,891</b>	<b>12,874</b>	<b>236,003</b>

(unaudited) (millions of Canadian dollars)	2016											
	Q3				Q2				Q1			
	Within 1 year	1 to 5 years	Over 5 years	Total	Within 1 year	1 to 5 years	Over 5 years	Total	Within 1 year	1 to 5 years	Over 5 years	Total
<b>Retail</b>												
Residential mortgages	27,940	16,793	312	45,045	27,803	15,024	269	43,096	28,416	15,175	244	43,835
Qualifying revolving retail	5,692	–	–	5,692	5,442	–	–	5,442	5,105	–	–	5,105
Other retail	5,197	2,832	2,077	10,106	5,165	2,841	1,908	9,914	5,193	2,768	1,863	9,824
	<b>38,829</b>	<b>19,625</b>	<b>2,389</b>	<b>60,843</b>	<b>38,410</b>	<b>17,865</b>	<b>2,177</b>	<b>58,452</b>	<b>38,714</b>	<b>17,943</b>	<b>2,107</b>	<b>58,764</b>
<b>Non-retail</b>												
Corporate	40,456	17,015	2,019	59,490	37,654	16,231	3,077	56,962	34,930	18,286	3,451	56,667
Sovereign	26,525	10,899	5,430	42,854	18,659	10,441	6,006	35,106	19,110	10,778	5,992	35,880
Financial Institutions	60,350	1,925	43	62,318	53,799	1,979	16	55,794	54,571	1,984	18	56,573
	<b>127,331</b>	<b>29,839</b>	<b>7,492</b>	<b>164,662</b>	<b>110,112</b>	<b>28,651</b>	<b>9,099</b>	<b>147,862</b>	<b>108,611</b>	<b>31,048</b>	<b>9,461</b>	<b>149,120</b>
<b>Trading book</b>	<b>1,069</b>	<b>4,958</b>	<b>3,426</b>	<b>9,453</b>	<b>2,201</b>	<b>5,344</b>	<b>2,550</b>	<b>10,095</b>	<b>1,973</b>	<b>5,376</b>	<b>3,500</b>	<b>10,849</b>
<b>Total</b>	<b>167,229</b>	<b>54,422</b>	<b>13,307</b>	<b>234,958</b>	<b>150,723</b>	<b>51,860</b>	<b>13,826</b>	<b>216,409</b>	<b>149,298</b>	<b>54,367</b>	<b>15,068</b>	<b>218,733</b>

(1) Gross credit exposure is the expected exposure upon the default of an obligor before any specific allowances or credit risk mitigation.



## Credit Risk Mitigation - Guarantees and Credit Derivatives

(unaudited) (millions of Canadian dollars)	2017				2016	
	Q2		Q1		Q4	
<b>Total exposure covered by:</b>	Standardized <sup>(1)</sup>	AIRB <sup>(2)</sup>	Standardized <sup>(1)</sup>	AIRB <sup>(2)</sup>	Standardized <sup>(1)</sup>	AIRB <sup>(2)</sup>
<b>Retail</b>						
Residential mortgage	295	2,497	426	3,302	427	5,364
Qualifying revolving retail	-	-	-	-	-	-
Other retail	2,633	189	2,705	188	2,650	195
	<b>2,928</b>	<b>2,686</b>	<b>3,131</b>	<b>3,490</b>	<b>3,077</b>	<b>5,559</b>
<b>Non-retail</b>						
Corporate	1,162	2,042	1,056	2,012	797	2,096
Sovereign	-	-	-	-	-	-
Financial Institutions	-	6	-	-	-	-
	<b>1,162</b>	<b>2,048</b>	<b>1,056</b>	<b>2,012</b>	<b>797</b>	<b>2,096</b>
<b>Trading book</b>	-	7	-	23	-	10
<b>Total</b>	<b>4,090</b>	<b>4,741</b>	<b>4,187</b>	<b>5,525</b>	<b>3,874</b>	<b>7,665</b>

(unaudited) (millions of Canadian dollars)	2016					
	Q3		Q2		Q1	
<b>Total exposure covered by:</b>	Standardized <sup>(1)</sup>	AIRB <sup>(2)</sup>	Standardized <sup>(1)</sup>	AIRB <sup>(2)</sup>	Standardized <sup>(1)</sup>	AIRB <sup>(2)</sup>
<b>Retail</b>						
Residential mortgage	1,146	6,259	963	4,737	541	5,534
Qualifying revolving retail	-	-	-	-	-	-
Other retail	2,578	195	2,694	203	2,809	299
	<b>3,724</b>	<b>6,454</b>	<b>3,657</b>	<b>4,940</b>	<b>3,350</b>	<b>5,833</b>
<b>Non-retail</b>						
Corporate	712	2,099	1,016	2,178	1,107	2,489
Sovereign	-	-	-	-	-	-
Financial Institutions	-	-	-	-	-	-
	<b>712</b>	<b>2,099</b>	<b>1,016</b>	<b>2,178</b>	<b>1,107</b>	<b>2,489</b>
<b>Trading book</b>	-	16	-	17	-	34
<b>Total</b>	<b>4,436</b>	<b>8,569</b>	<b>4,673</b>	<b>7,135</b>	<b>4,457</b>	<b>8,356</b>

(1) No eligible financial collateral.

(2) For exposures under the AIRB approach, eligible financial collateral is taken into account in the Bank's Loss Given Default (LGD) models. Separate disclosure of eligible financial collateral is, therefore, not required.



## Banking Book Equity

(unaudited) (millions of Canadian dollars)	2017								2016			
	Q2				Q1				Q4			
	Total exposures	Unfunded commitments	On balance sheet exposures at carrying value	Gross unrealized gains (losses)	Total exposures	Unfunded commitments	On balance sheet exposures at carrying value	Gross unrealized gains (losses)	Total exposures	Unfunded commitments	On balance sheet exposures at carrying value	Gross unrealized gains (losses)
Public	522	–	522	139	563	–	563	99	529	–	529	36
Private	350	37	313	79	323	40	283	70	346	40	306	69
	<b>872</b>	<b>37</b>	<b>835</b>	<b>218</b>	<b>886</b>	<b>40</b>	<b>846</b>	<b>169</b>	<b>875</b>	<b>40</b>	<b>835</b>	<b>105</b>

(unaudited) (millions of Canadian dollars)	2016											
	Q3				Q2				Q1			
	Total exposures	Unfunded commitments	On balance sheet exposures at carrying value	Gross unrealized gains (losses)	Total exposures	Unfunded commitments	On balance sheet exposures at carrying value	Gross unrealized gains (losses)	Total exposures	Unfunded commitments	On balance sheet exposures at carrying value	Gross unrealized gains (losses)
Public	525	–	525	9	527	–	527	(17)	537	–	537	(118)
Private	341	40	301	62	307	35	272	66	298	35	263	56
	<b>866</b>	<b>40</b>	<b>826</b>	<b>71</b>	<b>834</b>	<b>35</b>	<b>799</b>	<b>49</b>	<b>835</b>	<b>35</b>	<b>800</b>	<b>(62)</b>



## Credit Derivative Positions (notional amounts)

(unaudited) (millions of Canadian dollars)	2017								2016			
	Q2				Q1				Q4			
	Credit portfolio <sup>(1)</sup>		Trading		Credit portfolio <sup>(1)</sup>		Trading		Credit portfolio <sup>(1)</sup>		Trading	
	Protection purchased	Protection sold	Protection purchased	Protection sold	Protection purchased	Protection sold	Protection purchased	Protection sold	Protection purchased	Protection sold	Protection purchased	Protection sold
Credit default swaps												
Indices, singles names and other	132	20	2,419	2,127	125	20	1,402	966	60	20	1,188	627
Tranches on indices	-	-	-	-	-	-	-	-	-	-	-	-
Total return swaps	-	-	217	-	-	-	216	-	-	-	217	-
Credit options	-	-	-	-	-	-	-	-	-	-	27	27

(unaudited) (millions of Canadian dollars)	2016											
	Q3				Q2				Q1			
	Credit portfolio <sup>(1)</sup>		Trading		Credit portfolio <sup>(1)</sup>		Trading		Credit portfolio <sup>(1)</sup>		Trading	
	Protection purchased	Protection sold	Protection purchased	Protection sold	Protection purchased	Protection sold	Protection purchased	Protection sold	Protection purchased	Protection sold	Protection purchased	Protection sold
Credit default swaps												
Indices, singles names and other	59	20	1,728	1,059	88	19	1,411	677	63	21	1,319	533
Tranches on indices	-	-	-	-	-	-	-	-	-	-	-	-
Total return swaps	-	-	239	-	-	-	177	-	-	-	186	-
Credit options	-	-	41	15	-	-	38	38	-	-	63	63

(1) Protection sold solely for the purpose of reducing protection purchased.





## Derivatives Financial Instruments According to Basel Definition

	2017		2016			
	Q2	Q1	Q4	Q3	Q2	Q1
(unaudited) (millions of Canadian dollars)						
<b>Under Basel III</b>						
<b>Foreign Exchange Related Contracts</b>						
Swaps	182,943	182,895	195,181	185,738	205,355	205,049
Options	7,105	6,883	7,302	8,387	9,564	10,381
- purchased	7,809	6,698	6,990	7,861	9,439	11,660
- sold	29,554	31,777	34,832	62,710	28,677	30,470
Exchange traded and OTC futures contracts	227,411	228,253	244,305	264,696	253,035	257,560
Total notional amount	4,211	4,248	4,188	3,752	6,054	6,551
Replacement cost	2,710	2,347	2,649	2,366	3,154	3,962
- gross	1,933	2,009	1,959	2,033	2,086	2,035
- net <sup>(1)</sup>	4,643	4,356	4,608	4,399	5,240	5,997
Future credit risk	1,284	1,247	1,242	1,291	1,375	1,810
Credit equivalent <sup>(2)</sup>						
Risk-weighted equivalent <sup>(3)</sup>						
<b>Interest Rate Related Contracts</b>						
Swaps	388,737	404,712	398,214	377,655	378,617	437,908
Options	18,743	18,834	23,527	9,604	13,150	19,424
- purchased	14,600	21,887	23,601	5,765	7,831	12,293
- sold	6,816	14,899	13,316	7,840	6,480	7,506
Exchange traded and OTC futures contracts	428,896	460,332	458,658	400,864	406,078	477,131
Total notional amount	4,426	4,215	5,930	7,629	5,966	7,190
Replacement cost	1,202	1,129	1,353	1,609	1,663	1,648
- gross	1,493	1,398	1,402	1,513	1,548	1,606
- net <sup>(1)</sup>	2,695	2,527	2,755	3,122	3,211	3,254
Future credit risk	638	588	774	927	911	875
Credit equivalent <sup>(2)</sup>						
Risk-weighted equivalent <sup>(3)</sup>						
<b>Financial Futures</b>						
Total notional amount	125,581	111,574	116,470	121,080	101,956	108,307
<b>Equity and Commodity Contracts</b>						
Total notional amount	54,851	49,932	46,873	46,099	41,417	42,108
Replacement cost	1,878	2,641	2,482	2,712	2,990	3,416
- gross	1,567	2,176	2,154	2,447	2,640	3,084
- net <sup>(1)</sup>	2,505	2,194	2,037	1,899	1,638	1,693
Future credit risk	4,072	4,370	4,191	4,346	4,278	4,777
Credit equivalent <sup>(2)</sup>	298	368	324	314	515	537
Risk-weighted equivalent <sup>(3)</sup>						
<b>Credit Derivatives</b>						
Total notional amount (trading only) <sup>(5)</sup>	4,763	2,585	2,086	3,082	2,341	2,164
Total Return Swap Notional Amount <sup>(4)(5)</sup>	33,160	31,389	30,477	27,900	27,064	25,101
Replacement cost	148	173	104	101	81	90
- gross	40	33	34	27	42	40
- net <sup>(1)</sup>	1,047	1,005	982	917	1,001	929
Future credit risk	1,087	1,038	1,016	944	1,043	969
Credit equivalent <sup>(2)</sup>	121	141	142	122	88	81
Risk-weighted equivalent <sup>(3)</sup>						
<b>Total Derivatives</b>						
Total notional amount	874,662	884,065	898,869	863,721	831,891	912,371
Replacement cost	10,663	11,277	12,704	14,194	15,091	17,247
- gross	5,519	5,685	6,190	6,449	7,499	8,734
- net <sup>(1)</sup>	6,978	6,606	6,380	6,362	6,273	6,263
Future credit risk	12,497	12,291	12,570	12,811	13,772	14,997
Credit equivalent <sup>(2)</sup>	2,341	2,344	2,482	2,654	2,889	3,303
Risk-weighted equivalent <sup>(3)</sup>						

(1) Net replacement cost is gross positive replacement cost with consideration of master netting agreements without consideration of collateral.

(2) Includes the impact of master netting agreements but excludes collateral.

(3) Risk weighted amounts reported are net of impact of collaterals and master netting agreements.

(4) Securitised exposure recognized for capital ratio but not for consolidated balance sheet purposes due to IFRS standards.

(5) Trading Credit Derivatives only.



## Over The Counter Derivatives Financial Instruments Settled by Central Counterparties <sup>(1)</sup>

	2017						2016		
	Q2			Q1			Q4		
	Exchange-traded contracts	OTC-Traded		Exchange-traded contracts	OTC-Traded		Exchange-traded contracts	OTC-Traded	
		Settled by central counterparties	Not settled by central counterparties		Settled by central counterparties	Not settled by central counterparties		Settled by central counterparties	Not settled by central counterparties
(unaudited) (millions of Canadian dollars)									
Interest rate contracts	149,009	280,124	125,345	144,792	303,632	123,482	155,838	297,612	121,678
Foreign exchange contracts	91	–	227,319	459	–	227,794	821	–	243,484
Equity, commodity and credit derivative contracts <sup>(2)</sup>	21,868	5,094	65,812	19,567	2,741	61,598	18,658	1,977	58,801

	2016								
	Q3			Q2			Q1		
	Exchange-traded contracts	OTC-Traded		Exchange-traded contracts	OTC-Traded		Exchange-traded contracts	OTC-Traded	
		Settled by central counterparties	Not settled by central counterparties		Settled by central counterparties	Not settled by central counterparties		Settled by central counterparties	Not settled by central counterparties
(unaudited) (millions of Canadian dollars)									
Interest rate contracts	129,581	265,437	126,926	115,717	267,983	124,333	132,266	318,318	134,854
Foreign exchange contracts	160	–	264,536	129	–	252,907	179	–	257,381
Equity, commodity and credit derivative contracts <sup>(2)</sup>	17,778	2,792	56,511	13,263	1,880	55,679	14,122	1,513	53,738

(1) Notional amounts.

(2) Credit derivative contracts in non-trading book are excluded.

## Aggregate Amount of Securitization Exposures

(unaudited) (millions of Canadian dollars)	2017						2016											
	Q2		Q1		Q4		Q3		Q2		Q1							
	Banking Book		Trading book		Banking Book		Trading book		Banking Book		Trading book		Banking Book		Trading book			
	On balance sheet	Off balance sheet	On balance sheet	On balance sheet	Off balance sheet	On balance sheet	On balance sheet	Off balance sheet	On balance sheet	On balance sheet	Off balance sheet	On balance sheet	On balance sheet	Off balance sheet	On balance sheet	On balance sheet	Off balance sheet	On balance sheet
<b>Bank's own assets</b>																		
Traditional exposures																		
Insured Mortgage loans																		
Retained <sup>(1)</sup>	7,589	-	-	7,484	-	-	5,457	-	-	3,748	-	-	4,341	-	-	3,420	-	-
Credit Cards																		
Retained <sup>(1)</sup>	192	383	-	158	329	-	213	426	-	209	419	-	193	391	-	164	340	-
Purchased <sup>(2)</sup>	478	-	-	478	-	-	89	-	-	89	-	-	89	-	-	89	-	-
<b>Total - Bank's own assets</b>	<b>8,259</b>	<b>383</b>	<b>-</b>	<b>8,120</b>	<b>329</b>	<b>-</b>	<b>5,759</b>	<b>426</b>	<b>-</b>	<b>4,046</b>	<b>419</b>	<b>-</b>	<b>4,623</b>	<b>391</b>	<b>-</b>	<b>3,673</b>	<b>340</b>	<b>-</b>
<b>Third party assets</b>																		
Sponsored																		
Traditional exposures <sup>(3)</sup>																		
Residential Mortgages - Insured	-	1,634	-	-	1,671	1	-	1,744	2	-	1,790	1	-	1,440	19	-	1,204	7
Residential Mortgages - conventional	-	671	-	-	694	1	-	738	1	-	734	-	-	562	7	-	483	3
Fleet Lease Receivables	-	252	-	-	255	-	-	258	-	-	261	-	-	259	3	-	263	1
Auto Floorplans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Auto Loans	-	132	-	-	136	-	-	136	-	-	137	-	-	136	2	-	141	1
Purchased																		
Traditional exposures																		
Insured Mortgage loans - MBS	3,217	-	2,145	4,198	-	1,885	4,377	-	1,732	4,536	-	1,207	4,715	-	1,388	5,240	-	1,390
Credit Cards - ABS	481	-	70	478	-	42	89	-	26	89	-	36	89	-	49	89	-	68
Home Equity - ABS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Commercial mortgage back securities (CMBS)	19	-	-	12	-	-	13	-	-	13	-	-	13	-	-	13	-	-
Collateralized debt obligation (CDO)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collateralized mortgage obligation (CMO)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	1,425	225	-	488	-	-	477	-	-	-	-	-	-	-	-	-	-	-
Synthetic exposures																		
CDX tranches	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Resecuritized exposures																		
Master Asset Vehicles <sup>(4)</sup>	-	-	-	-	-	-	542	-	-	543	-	-	543	-	-	545	-	-
Commercial paper not included in the Pan-Canadian restructuring plan	-	-	-	-	-	-	74	-	-	92	-	-	91	-	-	102	-	-
Collateralized mortgage obligation (CMO)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total - Third party assets</b>	<b>5,142</b>	<b>2,914</b>	<b>2,215</b>	<b>5,176</b>	<b>2,756</b>	<b>1,929</b>	<b>5,572</b>	<b>2,876</b>	<b>1,761</b>	<b>5,273</b>	<b>2,922</b>	<b>1,244</b>	<b>5,451</b>	<b>2,397</b>	<b>1,468</b>	<b>5,989</b>	<b>2,091</b>	<b>1,470</b>
<b>Total - Bank</b>	<b>13,401</b>	<b>3,297</b>	<b>2,215</b>	<b>13,296</b>	<b>3,085</b>	<b>1,929</b>	<b>11,331</b>	<b>3,302</b>	<b>1,761</b>	<b>9,319</b>	<b>3,341</b>	<b>1,244</b>	<b>10,074</b>	<b>2,788</b>	<b>1,468</b>	<b>9,662</b>	<b>2,431</b>	<b>1,470</b>

(1) The Retained exposures for insured mortgage loans and credit card receivables are treated under the AIRB Framework as if they remained on the Bank's balance sheet.

(2) The credit card receivable purchased held from Bank's own assets securitization represent the Bank's interest in investment grade subordinated notes issued.

(3) Sponsored Traditional exposures comprise Bank's committed amount to the Fusion Trust and Clarity Trust liquidity facility lines as well as the Bank's purchased note of Fusion Trust and Clarity Trust.

(4) Resecuritized exposures comprise the carrying value of the restructured notes held by the Bank and the Bank's committed amount to the margin funding facility related to the MAV.

# Capital Requirements for Securitization Exposures Under Securitization Framework <sup>(1)</sup>

(unaudited) (millions of Canadian dollars)	2017												2016					
	Q2						Q1						Q4					
	Banking Book		Trading book		Banking Book		Trading book		Banking Book		Trading book		Banking Book		Trading book			
	On balance sheet		Off balance sheet		On balance sheet		On balance sheet		Off balance sheet		On balance sheet		On balance sheet		Off balance sheet		On balance sheet	
	Exposure Amount	Risk-Weighted Assets	Exposure Amount	Risk-Weighted Assets	Exposure Amount	Risk-Weighted Assets	Exposure Amount	Risk-Weighted Assets	Exposure Amount	Risk-Weighted Assets	Exposure Amount	Risk-Weighted Assets	Exposure Amount	Risk-Weighted Assets	Exposure Amount	Risk-Weighted Assets	Exposure Amount	Risk-Weighted Assets
<b>Bank's own assets <sup>(2)</sup></b>																		
Credit Cards																		
Seller's interest exposure <sup>(3)</sup>	192	120	383	51	-	-	157	103	329	44	-	-	213	136	426	58	-	-
Purchased	481	55	-	-	-	-	478	54	-	-	-	-	89	41	-	-	-	-
<b>Total - Bank's own assets</b>	<b>673</b>	<b>175</b>	<b>383</b>	<b>51</b>	<b>-</b>	<b>-</b>	<b>635</b>	<b>157</b>	<b>329</b>	<b>44</b>	<b>-</b>	<b>-</b>	<b>302</b>	<b>177</b>	<b>426</b>	<b>58</b>	<b>-</b>	<b>-</b>
<b>Third party assets</b>																		
<b>Securitized</b>																		
7% - 30%	1,896	179	2,914	204	70	49	953	71	2,756	214	42	29	536	11	2,876	235	26	21
35% - 100%	26	19	-	-	-	-	26	19	-	-	-	-	43	32	-	-	-	-
150% - 850%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1250 %	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Home Equity - ABS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collateralized mortgage obligation (CMO)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Resecuritized</b>																		
7% - 30%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35% - 100%	-	-	-	-	-	-	-	-	-	-	-	-	500	210	-	-	-	-
150% - 850%	-	-	-	-	-	-	-	-	-	-	-	-	113	301	-	-	-	-
1250 %	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master Asset Vehicles	-	-	-	-	-	-	-	-	-	-	-	-	3	42	-	-	-	-
Commercial paper not included in the Pan-Canadian restructuring plan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collateralized mortgage obligation (CMO)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total - Third party assets</b>	<b>1,922</b>	<b>198</b>	<b>2,914</b>	<b>204</b>	<b>70</b>	<b>49</b>	<b>979</b>	<b>90</b>	<b>2,756</b>	<b>214</b>	<b>42</b>	<b>29</b>	<b>1,195</b>	<b>596</b>	<b>2,876</b>	<b>235</b>	<b>26</b>	<b>21</b>
<b>Total</b>	<b>2,595</b>	<b>373</b>	<b>3,297</b>	<b>255</b>	<b>70</b>	<b>49</b>	<b>1,614</b>	<b>247</b>	<b>3,085</b>	<b>258</b>	<b>42</b>	<b>29</b>	<b>1,497</b>	<b>773</b>	<b>3,302</b>	<b>293</b>	<b>26</b>	<b>21</b>

(unaudited) (millions of Canadian dollars)	2016												2016					
	Q3						Q2						Q1					
	Banking Book		Trading book		Banking Book		Trading book		Banking Book		Trading book		Banking Book		Trading book			
	On balance sheet		Off balance sheet		On balance sheet		On balance sheet		Off balance sheet		On balance sheet		On balance sheet		Off balance sheet		On balance sheet	
	Exposure Amount	Risk-Weighted Assets	Exposure Amount	Risk-Weighted Assets	Exposure Amount	Risk-Weighted Assets	Exposure Amount	Risk-Weighted Assets	Exposure Amount	Risk-Weighted Assets	Exposure Amount	Risk-Weighted Assets	Exposure Amount	Risk-Weighted Assets	Exposure Amount	Risk-Weighted Assets	Exposure Amount	Risk-Weighted Assets
<b>Bank's own assets <sup>(2)</sup></b>																		
Credit Cards																		
Seller's interest exposure <sup>(3)</sup>	209	131	419	58	-	-	193	123	391	56	-	-	164	109	340	49	-	-
Purchased	89	41	-	-	-	-	89	41	-	-	-	-	89	41	-	-	-	-
<b>Total - Bank's own assets</b>	<b>298</b>	<b>172</b>	<b>419</b>	<b>58</b>	<b>-</b>	<b>-</b>	<b>282</b>	<b>164</b>	<b>391</b>	<b>56</b>	<b>-</b>	<b>-</b>	<b>253</b>	<b>150</b>	<b>340</b>	<b>49</b>	<b>-</b>	<b>-</b>
<b>Third party assets</b>																		
<b>Securitized</b>																		
7% - 30%	59	11	2,922	171	36	25	59	11	2,397	165	49	34	60	11	2,091	156	68	47
35% - 100%	43	32	-	-	-	-	43	32	-	-	-	-	43	32	-	-	-	-
150% - 850%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1250 %	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Home Equity - ABS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collateralized mortgage obligation (CMO)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Resecuritized</b>																		
7% - 30%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35% - 100%	515	216	-	-	-	-	516	217	-	-	-	-	529	238	-	-	-	-
150% - 850%	116	309	-	-	-	-	114	307	-	-	-	-	113	303	-	-	-	-
1250 %	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Master Asset Vehicles	4	46	-	-	-	-	4	49	-	-	-	-	4	55	-	-	-	-
Commercial paper not included in the Pan-Canadian restructuring plan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collateralized mortgage obligation (CMO)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total - Third party assets</b>	<b>737</b>	<b>614</b>	<b>2,922</b>	<b>171</b>	<b>36</b>	<b>25</b>	<b>736</b>	<b>616</b>	<b>2,397</b>	<b>165</b>	<b>49</b>	<b>34</b>	<b>749</b>	<b>639</b>	<b>2,091</b>	<b>156</b>	<b>68</b>	<b>47</b>
<b>Total</b>	<b>1,035</b>	<b>786</b>	<b>3,341</b>	<b>229</b>	<b>36</b>	<b>25</b>	<b>1,018</b>	<b>780</b>	<b>2,788</b>	<b>221</b>	<b>49</b>	<b>34</b>	<b>1,002</b>	<b>789</b>	<b>2,431</b>	<b>205</b>	<b>68</b>	<b>47</b>

(1) National Bank uses the following approaches for determining the risk-weighted assets : RBA, IAA and, starting Q2 2017, the Supervisory Formula.

(2) Since inception, no capital has been assessed for the Bank's early amortization provisions associated with the securitized credit cards portfolio because the excess spread of the underlying portfolio has remained above the threshold for which capital charge would be incurred.

(3) Seller's interest exposure are treated under AIRB Approach.



## Asset Securitization - Managed Loans

	2017										2016				
	Q2					Q1					Q4				
	Total gross loans <sup>(1)</sup>	Gross impaired loans and other past due loans <sup>(2)</sup>	Net write-offs	Securitization activities for the quarter ended	Exposure amount intended to be securitized	Total gross loans <sup>(1)</sup>	Gross impaired loans and other past due loans <sup>(2)</sup>	Net write-offs	Securitization activities for the quarter ended	Exposure amount intended to be securitized	Total gross loans <sup>(1)</sup>	Gross impaired loans and other past due loans <sup>(2)</sup>	Net write-offs	Securitization activities for the quarter ended	Exposure amount intended to be securitized
(unaudited) (millions of Canadian dollars)															
<b>Banking Book</b>															
Insured mortgage loans	21,640	–	–	1,805	–	21,093	–	–	3,749	–	18,709	–	–	3,134	–
Credit card receivables	1,389	9	13	–	–	1,389	8	12	461	–	1,389	8	11	–	–
<b>Total</b>	<b>23,029</b>	<b>9</b>	<b>13</b>	<b>1,805</b>	<b>–</b>	<b>22,482</b>	<b>8</b>	<b>12</b>	<b>4,210</b>	<b>–</b>	<b>20,098</b>	<b>8</b>	<b>11</b>	<b>3,134</b>	<b>–</b>
<b>Trading Book</b>															
Insured mortgage loans	5,844	–	–	118	151	5,850	–	–	383	282	5,631	–	–	1,389	323

	2016										2016				
	Q3					Q2					Q1				
	Total gross loans <sup>(1)</sup>	Gross impaired loans and other past due loans <sup>(2)</sup>	Net write-offs	Securitization activities for the quarter ended	Exposure amount intended to be securitized	Total gross loans <sup>(1)</sup>	Gross impaired loans and other past due loans <sup>(2)</sup>	Net write-offs	Securitization activities for the quarter ended	Exposure amount intended to be securitized	Total gross loans <sup>(1)</sup>	Gross impaired loans and other past due loans <sup>(2)</sup>	Net write-offs	Securitization activities for the quarter ended	Exposure amount intended to be securitized
(unaudited) (millions of Canadian dollars)															
<b>Banking Book</b>															
Insured mortgage loans	17,123	–	–	1,134	–	17,903	–	–	2,623	–	16,535	–	–	1,650	–
Credit card receivables	1,389	8	12	–	–	1,389	9	14	–	–	1,389	8	13	–	–
<b>Total</b>	<b>18,512</b>	<b>8</b>	<b>12</b>	<b>1,134</b>	<b>–</b>	<b>19,292</b>	<b>9</b>	<b>14</b>	<b>2,623</b>	<b>–</b>	<b>17,924</b>	<b>8</b>	<b>13</b>	<b>1,650</b>	<b>–</b>
<b>Trading Book</b>															
Insured mortgage loans	4,324	–	–	513	1,045	4,051	–	–	360	570	3,814	–	–	359	407

(1) Notional amount.

(2) Comprises impaired loans and fully secured loans that are 90 days or more past due and for which, in the opinion of management, there is reasonable assurance that principal and interest will ultimately be collected.

Credit card receivables are not classified as impaired loans but, instead, are written off when payments are 180 days in arrears.



# Glossary

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