



### SUPPLEMENTARY REGULATORY CAPITAL DISCLOSURE

**FOURTH QUARTER 2016** 

(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 2016 and also in the document entitled *Supplementary Financial Information* which is available on the Bank's website at nbc.ca.



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

Name   Common Equity Tier 1 capital: Instruments and reserves   September   Common Equity Tier 1 capital: Instruments and reserves   September   Common Equity Tier 1 capital: Instruments and reserves   September   Common Equity Tier 1 capital: Instruments and reserves   September   Common Equity Tier 1 capital: Instruments and reserves   September   Common Equity Tier 1 capital: Instruments and reserves   September   Common Equity Tier 1 capital: Instruments and other reserves   September   Common Equity Tier 1 capital: Instruments with the september   Common Equity Tier 1 capital: September   Common Capity Tier 1 capital: September   Common Capity Tier 1 capital: September   Common Capity Tier 1 capital: September   Common September   Common September   Common September
Common Equity Tier 1 capital: instruments and reserves
Directly issued qualifying common share capital plus related contributed surplus (9)   a + a'   2,718   2,663   2,689   2,691   2,681   2,375   2,382   2,882   2,882   2,892   2,893   3,862   2,893   3,862   3,670   6,500   6,523   3,862   3,670   6,500   6,523   3,862   3,670   6,500   6,523   3,862   3,670   6,500   6,523   3,862   3,670   6,500   6,523   3,862   3,670   6,500   6,523   3,862   3,670   6,50
Retained earnings
Retained earnings
Common Sare capital issued by subsidiaries and held by third parties (amount allowed in group CET1)   d
Common Equity Tier 1 capital before regulatory adjustments to Common Equity Tier 1 capital
Common Equity Tier 1 capital before regulatory adjustments to Common Equity Tier 1 capital
B   Goodwill (net of related tax liability)   P   1,669   1,661   1,545   1,557   1,536   1,519   1,439     9   Intangible assets other than mortgage-servicing rights   F - X   985   977   954   888   908   905   895     11   Accumulated other comprehensive income related to cash flow hedges   h   135   165   160   124   124   94   149     12   Shortfall of total provisions to expected losses   i     12     3     14   Gains (losses) due to changes in own credit risk on fair valued liabilities   j   (14)   (2)   (1)   28   5   -   (1)     15   Defined benefit pension plan assets (net of related tax liability)   k - y   7   8   30   13   154   98   78     16   Investments in own shares (if not already netted off contributed surplus on reported balance sheet)   2   3   7   -   3   5   10     24   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   0   -   -   -   -   -   -   -   -   -
Intangible assets other than mortgage-servicing rights
Accumulated other comprehensive income related to cash flow hedges   h   135   165   160   124   124   94   149
12   Shortfall of total provisions to expected losses   i
Gains (losses) due to changes in own credit risk on fair valued liabilities   j (14) (2) (1) 28 5 - (1)
Defined benefit pension plan assets (net of related tax liability)    Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (note that the common plan assets (net of related tax liability)   Note that the common plan assets (net of related tax liability)   Note that the common plan assets (note that the comm
linvestments in own shares (if not already netted off contributed surplus on reported balance sheet)  2 3 7 - 3 5 10  Amount exceeding the 15% threshold  3 of which: significant investments in the common stock of financials  3 of which: significant investments in the common stock of financials  3 of which: significant investments in the common stock of financials  3 of which: significant investments in the common stock of financials  3 of which: significant investments in the common stock of financials  3 of which: significant investments in the common stock of financials  4 of which: significant investments in the common stock of financials  5 of which: significant investments in the common stock of financials  6 of which: significant investments in the common stock of financials  7 of which: significant investments in the common stock of financials  8 of which: significant investments to CET1 as determined by OSFI  9 (including regulatory adjustments to CET1 as determined by OSFI  9 (including regulatory adjustments to Common equity Tier 1  9 common Equity Tier 1 capital (CET1)  9 common Equ
Amount exceeding the 15% threshold of which: significant investments in the common stock of financials of which: significant investments in the common stock of financials of which: significant investments in the common stock of financials of which: significant investments in the common stock of financials of which: significant investments in the common stock of financials of which: deferred tax assets arising from temporary differences  Other deductions or regulatory adjustments to CET1 as determined by OSFI (including regulatory adjustments in respect of own use property)
of which: significant investments in the common stock of financials  n
25 of which: deferred tax assets arising from temporary differences  Other deductions or regulatory adjustments to CET1 as determined by OSFI (including regulatory adjustments in respect of own use property)
26   Other deductions or regulatory adjustments to CET1 as determined by OSFI
Cincluding regulatory adjustments in respect of own use property)
28   Total regulatory adjustments to Common equity Tier 1   2,784   2,812   2,695   2,632   2,730   2,621   2,573     29   Common Equity Tier 1 capital (CET1)   6,865   6,758   6,669   6,743   6,801   6,488   6,344     Additional Tier 1 capital: instruments     30   Directly issued qualifying Additional Tier 1 instruments plus related contributed surplus   (3)   (3)   (3)   (4,50)   (4
29 Common Equity Tier 1 capital (CET1)         6,865         6,758         6,669         6,743         6,801         6,488         6,344           Additional Tier 1 capital: instruments           30 Directly issued qualifying Additional Tier 1 instruments plus related contributed surplus <sup>(3)</sup> v         1,450         1,450         1,050         650         650         650           31 of which: classified as equity under applicable accounting standards         v + z         1,450         1,450         1,050         1,050         650         650         650           32 of which: classified as liabilities under applicable accounting standards         p         -
Additional Tier 1 capital: instruments  30 Directly issued qualifying Additional Tier 1 instruments plus related contributed surplus <sup>(3)</sup> 31 of which: classified as equity under applicable accounting standards  32 of which: classified as liabilities under applicable accounting standards  33 of which: classified as liabilities under applicable accounting standards  34 of which: classified as liabilities under applicable accounting standards  35 of which: classified as liabilities under applicable accounting standards  36 of which: classified as liabilities under applicable accounting standards  37 of which: classified as liabilities under applicable accounting standards  38 of which: classified as liabilities under applicable accounting standards  39 of which: classified as liabilities under applicable accounting standards  30 of which: classified as liabilities under applicable accounting standards  30 of which: classified as liabilities under applicable accounting standards  30 of which: classified as liabilities under applicable accounting standards  30 of which: classified as liabilities under applicable accounting standards  30 of which: classified as liabilities under applicable accounting standards  30 of which: classified as liabilities under applicable accounting standards  30 of which: classified as liabilities under applicable accounting standards  30 of which: classified as liabilities under applicable accounting standards  30 of which: classified as liabilities under applicable accounting standards  30 of which: classified as liabilities under applicable accounting standards
30 Directly issued qualifying Additional Tier 1 instruments plus related contributed surplus <sup>(3)</sup> 31 of which: classified as equity under applicable accounting standards 32 of which: classified as liabilities under applicable accounting standards 34 v 1,450 1,450 1,050 1,050 650 650 650 650 650 650 650 650 650
31 of which: classified as equity under applicable accounting standards
31 of which: classified as equity under applicable accounting standards
33 Directly issued capital instruments subject to phase out from Additional Tier 1 <sup>(3)(4)</sup>   p'+v'   950   950   1,162   1,161   1,175   1,348   1,348
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)
36 Additional Tier 1 capital before regulatory adjustments 2,401 2,401 2,212 2,211 1,825 1,998 1,998
Additional Tier 1 capital: regulatory adjustments
41   Other deductions from Tier 1 capital as determined by OSFI   1   1   1   -   -   3
41a of which: Reverse mortgages 1 1 1 3
43 Total regulatory adjustments to Additional Tier 1 capital 1 1 1 3
44 Additional Tier 1 capital (AT1) 2,400 2,400 2,211 2,211 1,825 1,998 1,995
45   Tier 1 capital (T1 = CET1 + AT1)   9,265   9,158   8,880   8,954   8,626   8,486   8,339
Tier 2 capital: instruments and provisions
47 Directly issued capital instruments subject to phase out from Tier 2 <sup>(3)</sup> (5)  r' 1,009 1,009 1,009 1,000 1,008 1,508 1,508
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) <b>s</b> 2 2
parties (amount allowed in group Tier 2)         \$         2         2         -         -         -         -         -           50 Allowances on loans (6)         t         230         236         275         33         44         33         27
parties (amount allowed in group Tier 2)   S   2   2   -   -   -   -   -   -   -   -
parties (amount allowed in group Tier 2)   S   2   2   -   -   -   -   -   -   -   -
parties (amount allowed in group Tier 2)   S   2   2   -   -   -   -   -   -   -   -
parties (amount allowed in group Tier 2)   S   2   2   -   -   -   -   -   -   -   -

<sup>(1)</sup> 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.

<sup>(2)</sup> Reconciliation with Balance Sheet is presented on page 7.

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

<sup>(4)</sup> Figures as at October 31, 2015 include the redemption of Series 20 preferred shares on November 15, 2015.

<sup>(5)</sup> Figures as at October 31, 2015 include the November 2, 2015 redemption of \$500 million in notes.

<sup>(6)</sup> 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 (continued)

			20	16			20	15	
		Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
(unau	dited) (millions of Canadian dollars)				All-in	basis			
60a	Common Equity Tier 1 Capital RWA (CET1)	68,205	68,530	68,375	69,741	68,835	68,617	67,071	66,264
60b	Tier 1 Capital RWA	68,430	68,765	68,604	70,006	69,094	68,883	67,333	66,534
60c	Total capital RWA	68,623	68,966	68,800	70,233	69,316	69,111	67,557	66,766
	Capital ratios								
61	Common Equity Tier 1 (as a percentage of risk weighted assets)	10.1%	9.9%	9.8%	9.7%	9.9%	9.5%	9.5%	9.3%
62	Tier 1 (as a percentage of risk weighted assets) <sup>(2)</sup>	13.5%	13.3%	12.9%	12.8%	12.5%	12.3%	12.4%	12.3%
63	Total capital (as a percentage of risk weighted assets) <sup>(2) (3)</sup>	15.3%	15.1%	14.8%	14.2%	14.0%	14.5%	14.6%	14.6%
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%	7.0%	7.0%	7.0%	7.0%
67	of which: G-SIB buffer requirement	na	na	na	na	na	na	na	na
67a	of which: D-SIBs buffer requirement	1.0%	1.0%	1.0%	1.0%	na	na	na	na
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk weighted assets)	10.1%	9.9%	9.8%	9.7%	9.9%	9.5%	9.5%	9.3%
	OSFI all-in target								
69	Common Equity Tier 1 all-in target ratio	8.0%	8.0%	8.0%	8.0%	7.0%	7.0%	7.0%	7.0%
70	Tier 1 capital all-in target ratio	9.5%	9.5%	9.5%	9.5%	8.5%	8.5%	8.5%	8.5%
71	Total capital all-in target ratio	11.5%	11.5%	11.5%	11.5%	10.5%	10.5%	10.5%	10.5%
	Amounts below the thresholds for deduction (before risk weighting)								
72	Non-significant investments in the capital of other financials institutions	238	234	255	198	148	193	200	245
73	Significant investments in the common stock of financials institutions	245	229	278	321	412	410	297	345
75	Deferred tax assets arising from temporary differences (net of related tax liabilities)	54	31	24	467	414	427	428	424
	Applicable caps on the inclusion of allowances in Tier 2								
76	Allowance eligible for inclusion in Tier 2 in respect of exposures subject to standardised approach								
	(prior to application of cap)	62	65	51	33	35	31	27	25
77	Cap on inclusion of allowances in Tier 2 under standardised approach	78	81	58	66	68	60	53	47
78	Allowance eligible for inclusion in Tier 2 in respect of exposures subject to internal ratings-based approach								
	(prior to application of cap) <sup>(4)</sup>	167	171	224	_	8	2	-	19
79	Cap on inclusion of allowances in Tier 2 under internal ratings-based approach	305	304	310	317	310	318	316	313
	Capital instruments subject to phase-out arrangements (only applicable between Jan 1, 2018 and Jan 1, 2022)								
82	Current cap on AT1 instruments subject to phase out arrangements	1,162	1,162	1,162	1,162	1,356	1,356	1,356	1,356
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	1,429	1,429	1,429	1,429	1,667	1,667	1,667	1,667
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	-	-	-	_	-	_	-	
	Transitional Capital Disclosure Template				Transitio	nal basis			
29	Common Equity Tier 1 capital (CET1)	7,928	7,819	7,710	7,769	8,384	8,005	7,808	7,609
45	Tier 1 capital (T1 = CET1 + AT1)	9,660	9,554	9,296	9,355	9,287	9,091	8,930	8,705
59	Total capital (TC = T1 + T2)	10,900	10,801	10,580	10,395	10,339	10,632	10,465	10,274
60	Total risk weighted assets	70,524	70,132	69,947	71,468	70,806	70,591	69,008	72,038
61	Common Equity Tier 1 (as a percentage of risk weighted assets)	11.2%	11.2%	11.0%	10.9%	11.8%	11.3%	11.3%	10.6%
62	Tier 1 (as a percentage of risk weighted assets) <sup>(2)</sup>	13.7%	13.6%	13.3%	13.1%	13.1%	12.9%	12.9%	12.1%
63	Total capital (as a percentage of risk weighted assets) <sup>(2) (3)</sup>	15.5%	15.4%	15.1%	14.6%	14.6%	15.1%	15.2%	14.3%

<sup>(1)</sup> 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.

<sup>(2)</sup> Ratios as at October 31, 2015 include the redemption of Series 20 preferred shares on November 15, 2015.

<sup>(3)</sup> Ratios as at October 31, 2015 include the November 2, 2015 redemption of \$500 million in notes.

<sup>(4)</sup> 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

			20	16			201	5	
(unau	dited) (millions of Canadian dollars)	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
	Accounting assets vs. leverage ratio exposure — Transitional basis								
1	Total consolidated assets as per published financial statements	232,206	229,896	220,734	219,301	216,090	215,560	207,123	214,474
2	Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	(72)	(76)	(89)	(53)	(59)	(70)	(87)	(77)
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>	725	1,348	1,091	567	1,924	3,516	4,178	318
5	Adjustment for securities financing transactions <sup>(1)</sup>	2,587	1,220	1,832	1,826	1,972	1,415	(1,966)	(3,381)
6	Adjustment for off balance-sheet items	21,937	20,294	19,996	19,599	19,585	18,745	18,472	17,761
7	Other adjustments	(3,888)	(4,010)	(3,767)	(3,968)	(3,915)	(5,160)	(4,003)	(4,030)
8	Leverage Ratio Exposure (transitional basis)	253,495	248,672	239,797	237,272	235,597	234,006	223,717	225,065

	Leverage ratio common disclosure								
	On-balance sheet exposures								
1	On-balance sheet items (excluding derivatives, SFTs and grandfathered securitization exposures but including collateral)	206,	83 202,407	193,238	188,359	185,659	180,550	176,215	176,139
2	(Asset amounts deducted in determining Basel III transitional Tier 1 capital)	(2,4	02) (2,421)	(2,301)	(2,238)	(2,086)	(2,015)	(1,986)	(1,969)
3	Total on-balance sheet exposures (excluding derivatives and SFTs) (sum of lines 1 and 2)	203,8	199,986	190,937	186,121	183,573	178,535	174,229	174,170
	Derivative exposures								
4	Replacement cost associated with all derivative transactions (i.e., net of eligible cash variation margin)	4,		6,337	7,318	5,527	7,370	6,152	7,764
5	Add-on amounts for PFE associated with all derivative transactions	6,	86 6,417	6,272	6,262	6,881	8,217	8,363	7,274
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		- 1,046	663	518	357	311	281	180
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)			-	-	-	-	-	-
11	Total derivative exposures (sum of lines 4 to 10)	11,1	12,291	13,272	14,098	12,765	15,898	14,796	15,218
	Securities financing transaction exposures								
12	Gross SFT assets recognised for accounting purposes (with no recognition of netting), after adjusting for sale accounting transactions	13,	48 14,880	13,760	15,628	17,702	19,413	23,887	25,597
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	(3	14) (1,270)	(246)	(337)	(199)	(729)	(9,547)	(9,570)
14	Counterparty credit risk (CCR) exposure for SFTs	2,	01 2,490	2,078	2,163	2,171	2,144	1,880	1,889
15	Agent transaction exposures			-	-	-	-	-	-
16	Total securities financing transaction exposures (sum of lines 12 to 15)	16,5	16,100	15,592	17,454	19,674	20,828	16,220	17,916
	Other off-balance sheet exposures								
17	Off-balance sheet exposure at gross notional amount	60,	91 57,378	57,018	55,485	55,438	53,848	52,892	52,948
18	(Adjustments for conversion to credit equivalent amounts)	(38,2	(37,084)	(37,022)	(35,886)	(35,853)	(35,103)	(34,420)	(35,187)
19	Off-balance sheet items (sum of lines 17 and 18)	21,9	38 20,294	19,996	19,599	19,585	18,745	18,472	17,761
	Capital and Total Exposures - Transitional Basis								
20	Tier 1 capital <sup>(2)</sup>	9,	60 9,554	9,296	9,355	9,287	9,091	8,930	8,705
21	Total Exposures (sum of lines 3, 11, 16 and 19)	253,4		239,797	237,272	235,597	234,006	223,717	225,065
	Leverage Ratio – Transitional Basis								
22	Basel III leverage ratio	3.	3% 3.8%	3.9%	3.9%	3.9%	3.9%	4.0%	3.9%
	All-in basis (Required by OSFI)	<u> </u>							
23	Tier 1 capital – All-in basis (2)	9,:	65 9,158	8,880	8,954	8,626	8,486	8,339	8,157
24	(Regulatory adjustments)	(2,8		(2,697)	(2,604)	(2,726)	(2,620)	(2,577)	(2,506)
25	Total Exposures	253,			236,906	234,957	233,401	223,126	224,528
26	Leverage ratio – All-in basis	-	7% 3,7%	3,7%	3.8%	3.7%	3.6%	3.7%	3.6%

 $<sup>{\</sup>rm (1)\,Adjust ments\,\,due\,\,to\,\,differences\,\,between\,\,accounting\,\,and\,\,regulatory\,\,netting\,\,standards.}$ 

<sup>(2)</sup> Figures as at October 31, 2015 include the redemption of Series 20 preferred shares on November 15, 2015.

## Reconciliation between Financial Accounting and Regulatory Capital Balance Sheets (1)

			Q4 2016		
(unaudited) (millions of Canadian dollars)	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
Assets		·			
Cash and deposits with financial institutions		8,183	-	8,183	
Securities		64,541	8,315	72,856	
Assets purchased under reverse repurchase agreements and securities borrowed		13,948	-	13,948	
Loans			4		
Residential mortgage		48,868	(24,327)	24,541	
Personal and credit card Business and governement		33,964 37,686	(1,388)	32,576 37,686	
Customers' liability under acceptances		6,441	_	6,441	
Less: Allowances for credit losses		(781)	_	(781)	
Allowances reflected in Tier 2 regulatory capital <sup>(5)</sup>	t	(101)		(/01)	(230)
Shortfall of allowances to expected loss	i				-
Allowances not reflected in regulatory capital					(551)
Other assets					
Derivative financial instruments		10,416	. =.	10,416	
Other		8,940	(57)	8,883	
Goodwill	e				1,669
Intangibles assets	r				1,140 <b>559</b>
Deferred tax assets  Deferred tax assets excluding those arising from temporary differences	•				) -
Deferred tax assets arising from temporary differences exceeding regulatory thresholds	, o				
Deferred tax assets arising from temporary differences exceeding regulatory timesholds  Deferred tax assets - realize through loss carrybacks					505
Deferred tax assets - other temporary differences					54
Defined-benefit pension fund net assets	k				9
Significant investments in other financial institutions					245
Significant investments exceeding regulatory thresholds	m + n				-
Significant investments not exceeding regulatory thresholds					245
Other					5,260
Total assets	-	232,206	(17,457)	214,749	
Liabilities					
Deposits		139,907	-	139,907	
Derivatives financial instruments Other liabilities		7,725 71,460	(17,457)	7,725 54,003	
Gains and losses due to changes in own credit risk on fair value liabilities		/1,460	(17,457)	54,003	(14)
Deferred tax liabilities	'				158
Related to goodwill	w				-
Related to intangibles	x				155
Related to pensions	y				2
Other deferred tax liabilities					1
Other					50,928
Subordinated debt		1,012	-	1,012	
Regulatory capital amortization of maturing debentures					-
Fair value adjustment and unamortized issuance cost					3
Subordinated debentures used for regulatory capital	_				1,009
Allowed for inclusion in Tier 2 capital Subject to phase out	į,				1,009
Ineligible additional Tier 2 capital	•				1,009
Excluded from Tier 2 capital due to cap					
Total liabilities		220,104	(17,457)	202,647	
Equity Attributable to Shareholders		11,292		11,292	
Common shares	a	11,272		11,292	2,645
Contributed surplus	a'				73
Retained Earnings	b				6,706
Accumulated Other Comprehensive Income (loss)	c				218
Net gains (losses) on instruments designated as cash flow hedges	h				135
Other					83
Preferred shares					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		810	(31)	779	_
Innovative instruments		010	(51)		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
Portion allowed for inclusion into CET1	d				7
Portion allowed for inclusion into Tier 1 capital	q				1
Portion allowed for inclusion into Tier 2 capital	S				2
Portion not allowed for regulatory capital		44 ***	A		-
Total Equity Total Liabilities and Equity	+	12,102 232,206	(31) (17,488)	12,071 214,718	

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.

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

<sup>(3)</sup> Total assets related to Insurance activities and National Bank Life Insurance Company, and other are \$167 million and \$12 million respectively.

<sup>(4)</sup> 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 (1)

					2016						20		
			Q				Q3	Q2	Q1	Q4	Q3	Q2	Q1
	ļ			Risk	-weighted assets								
( " ) ( " ) ( " ) ( " )	Exposure at		AIDD Assessed			Capital							
(unaudited) (millions of Canadian dollars)	default	Standardized	AIRB Approach	Other	Total	requirement <sup>(2)</sup>		ı		ı		Risk-v	weigthed assets
Credit risk													I
Retail													I
Residential mortgages	46,578	719	4,736	_	5,455	436	5,448	5,027	5,265	4,975	4,823	4,920	4,692
Qualifying revolving retail	5,716	-	1,178	_	1,178	94	1,227	1,152	1,011	1,036	973	1,017	1,003
Other retail	15,374	1,904	4,919	_	6,823	546	6,874	6,705	6,692	6,651	6,507	5,589	5,049
Non-retail													I
Corporate	58,262	2,001	25,392	-	27,393	2,191	26,001	26,869	27,196	26,662	26,486	25,683	24,155
Sovereign	26,826	222	653	-	875	70	849	580	658	629	578	633	550
Financial institutions	4,935	305	1,269	-	1,574	126	1,371	1,315	1,209	974	835	746	845
Banking book equity <sup>(3)</sup>	631	_	631	_	631	50	624	595	580	593	578	633	589
Securitization	4,068	_	831	_	831	67	785	781	795	798	755	1,582	2,291
Other assets	26,449	_	_	3,420	3,420	274	3,700	3,495	3,842	4,252	4,213	4,754	5,202
	·												1
Counterparty credit risk													I
Corporate	14,445	156	191	_	347	28	119	91	94	96	102	69	80
Sovereign	30,887	_	34	_	34	3	18	17	14	22	16	13	6
Financial institutions	37,159	_	402	_	402	32	1,683	1,204	1,415	1,402	1,756	1,477	1,423
Trading portfolio	9,623	213	2,132	_	2,345	187	2,496	2,659	2,897	2,774	3,765	3,572	3,743
Credit valuation adjustment charge <sup>(4)</sup>		2,055	_	_	2,055	165	2,145	2,090	2,423	2,367	2,434	2,395	2,475
		2,033			2,033	105	2,213	2,070	2,123	2,507	2,151	2,373	_, <i>,</i>
Regulatory scaling factor		_	2,540	-	2,540	203	2,508	2,570	2,593	2,512	2,577	2,511	2,430
Total - Credit risk	280,953	7,575	44,908	3,420	55,903	4,472	55,848	55,150	56,684	55,743	56,398	55,594	54,533
Market risk													I
VaR		_	1,014	-	1,014	81	1,097	1,319	1,266	1,262	976	731	693
Stressed VaR		_	1,067	-	1,067	85	1,512	1,972	1,707	1,875	1,225	953	1,086
Interest-rate specific risk		726	-	I	726	58	682	680	806	828	920	864	1,099
Total - Market risk		726	2,081	ı	2,807	224	3,291	3,971	3,779	3,965	3,121	2,548	2,878
Operational risk		9,495	_	_	9,495	760	9,391	9,254	9,278	9,127	9,098	8,929	8,853
Total	280,953	17,796	46,989	3,420	68,205	5,456	68,530	68,375	69,741	68,835	68,617	67,071	66,264
Capital ratio under Basel III													 I
Common Equity Tier 1 (CET1)					10.1%		9.9%	9.8%	9.7%	9.9%	9.5%	9.5%	9.3%
Tier 1 <sup>(5)</sup>					13.5%		13.3%	12.9%	12.8%	12.5%	12.3%	12.4%	12.3%
Total <sup>(5) (6)</sup>					15.3%		15.1%	14.8%	14.2%	14.0%	14.5%	14.6%	14.6%
Leverage ratio under Basel III					3.7%		3.7%	3.7%	3.8%	3.7%	3.6%	3.7%	3.6%
Leverage ratio unitier baset iii					5./%		5./%	5.7%	3.8%	5./%	5.6%	5./%	3.6%

<sup>(1)</sup> Figures are presented in an "all-in" basis.

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

<sup>(3)</sup> Calculated using the simple risk-weight method.

<sup>(4)</sup> Calculated based on CET1 risk-weighted assets.

<sup>(5)</sup> Ratios as at October 31, 2015 include the redemption of Series 20 preferred shares on November 15, 2015.

<sup>(6)</sup> Ratios as at October 31, 2015 include the November 2, 2015 redemption of \$500 million in notes.

# Risk-Weighted Assets Movement by Key Drivers (1)

			2016					20	15	
		Q4		Q3	Q2	Q1	Q4	Q3	Q2	Q1
	Non-counterparty	Counterparty								
(unaudited) (millions of Canadian dollars)	credit risk	credit risk <sup>(2)</sup>	Total	Total	Total	Total	Total	Total	Total	Total
Credit risk – Risk-weighted assets at beginning	49,387	6,461	55,848	55,150	56,684	55,743	56,398	55,594	54,533	52,782
Book size	687	(47)	640	(414)	(368)	631	1,038	146	844	757
Book quality	315	(247)	68	(135)	(41)	(411)	(365)	80	563	500
Model updates	69	(1,023)	(954)		8	_	(1,324)	(168)	-	(229)
Methodology and policy	_	_	- 1	-	_	_	_	_	-	_
Acquisitions and disposals	_	-	-	790	_	_	_	_	_	_
Foreign exchange movements	262	39	301	457	(1,133)	721	(4)	746	(346)	723
Credit risk – Risk-weighted assets at end	50,720	5,183	55,903	55,848	55,150	56,684	55,743	56,398	55,594	54,533
Market risk – Risk-weighted assets at beginning			3,291	3,971	3,779	3,965	3,121	2,548	2,878	3,317
Movement in risk levels <sup>(3)</sup>			(484)	(680)	192	(186)	217	23	(330)	(439)
Model updates			` -1	` -	_		627	550	` _	` -
Methodology and policy			_	_	_	_	_	_	-	_
Acquisitions and disposals			-	-	_	_	_	_	_	-
Market risk – Risk-weighted assets at end			2,807	3,291	3,971	3,779	3,965	3,121	2,548	2,878
Operational risk – Risk-weighted assets at beginning			9,391	9,254	9,278	9,127	9,098	8,929	8,853	8,719
Movement in risk levels			104	137	(24)	151	29	169	76	134
Acquisitions and disposals				-	-	_		-	_	-
Operational risk – Risk-weighted assets at end			9,495	9,391	9,254	9,278	9,127	9,098	8,929	8,853
Risk-weighted assets at end			68,205	68,530	68,375	69,741	68,835	68,617	67,071	66,264

<sup>(1)</sup> Figures are presented in an "all-in" basis.

<sup>(2)</sup> Calculated based on CET1 risk-weighted assets.

 $<sup>(3) \</sup> Also \ includes \ for eign \ exchange \ movement \ that \ is \ not \ considered \ material.$ 

## **Reconciliation of Balance Sheet with Credit Risk Exposures**

				Q4 2	016			
			Expo	osures subject to	credit risk capital		Other exposures	
		Drawn			Other exposures			
(unaudited) (millions of Canadian dollars)	Non-retail	Retail	Securitization	Repo-style transactions	Derivatives financial instruments	Subject to market risk capital	All other <sup>(1)</sup>	Balance sheet
Assets								
Cash and deposits with financial institutions <sup>(2)</sup>	7,475	-	-	_	-	-	708	8,183
Securities								
At fair value through profit or loss	5,506	_	613	_	_	39,845	_	45,964
Available-for-sale	14,481	_	5	_	_	_	122	14,608
Held-to-maturity	3,969	_	_	_	-	ı	_	3,969
	23,956	_	618		-	39,845	122	64,541
Securities purchased under reverse repurchase agreements and securities borrowed	_	_	_	13,948	_	_	_	13,948
Loans								
Residential mortgage <sup>(3)</sup>	27,504	21,364	-	-	-	=	_	48,868
Personal and credit card	-	32,576	1,388	-	_	_	_	33,964
Business and government	35,840	1,846	- 1 200		_		_	37,686
Continue and Park Witness American	63,344	55,786	1,388	-	-	_	_	120,518
Customers' liability under acceptances	6,441	(2.2)	-	_	=	_	(503)	6,441
Allowance for credit losses <sup>(4)</sup>	(157)	(32)	1 200			_	(592)	(781)
	69,628	55,754	1,388		_	_	(592)	126,178
Other								
Derivative financial instruments <sup>(2)</sup>					10,416			10,416
Due from clients, dealers and brokers		-	-	-	10,416	_	843	843
Purchase receivables	_ [	736	_	_	_ [		1,122	1,858
Investments in associates and joint ventures	_ [	_   00 /	_		_ [	_	645	645
Premises and equipment	<b>]</b>	853	_	_	_ [	_	485	1,338
Goodwill			_	_	_	_	1,412	1,412
Intangible assets		_	_	_	_	_	1,140	1,140
Other assets	_	_	_	_	_	_	1,704	1,704
5 45566	_	1,589	_	_	10,416	_	7,351	19,356
	101,059	57,343	2,006	13,948	10,416	39,845	7,589	232,206

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

<sup>(2)</sup> These exposures may also be subject to market risk.

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

<sup>(4)</sup> 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 (1)

												2	016											
(unaudited)																								
(millions of Canadian dollars)					Q4								Q3								Q2			
Risk Weight	0%	20%	35%	50%	75%	100%	150%	Total	0%	20%	35%	50%	75%	100%	150%	Total	0%	20%	35%	50%	75%	100%	150%	Total
Retail																								
Residential mortgage	47	_	1,598	27	311	87	-	2,070	-	-	2,148	14	268	92	-	2,522	-	-	959	14	278	89	-	1,340
Other retail	-	_	-	-	5,189	-	-	5,189	_	_	-	_	5,200	_	-	5,200	_	_	_	-	5,061	-	_	5,061
	47	_	1,598	27	5,500	87	_	7,259	_	_	2,148	14	5,468	92	-	7,722	_	_	959	14	5,339	89	_	6,401
Non-Retail																								i l
Corporate	-	50	-	-	-	5,105	-	5,155	-	-	-	-	-	4,911	-	4,911	-	-	-	-	-	4,557	1	4,558
Sovereign	396	_	-	-	-	223	-	619	255	-	-	-	-	193	-	448	358	-	-	-	-	-	-	358
Financial Institutions	_	266	_	_	-	228	16	510	_	499	_	_	-	215	30	744	_	555	_	_	-	42	_	597
	396	316	-	-	ı	5,556	16	6,284	255	499	-	-	ı	5,319	30	6,103	358	555	ı	-	ı	4,599	1	5,513
Trading	10	-	_	_	-	249	_	259	9	-	_	_	-	221	ı	230	6	-	-	-	-	506	_	512
Total	453	316	1,598	27	5,500	5,892	16	13,802	264	499	2,148	14	5,468	5,632	30	14,055	364	555	959	14	5,339	5,194	1	12,426

				2	016											20	15							
(unaudited) (millions of Canadian dollars)					Q1								Q4								Q3			
Risk Weight	0%	20%	35%	50%	75%	100%	150%	Total	0%	20%	35%	50%	75%	100%	150%	Total	0%	20%	35%	50%	75%	100%	150%	Total
Retail																								
Residential mortgage	_	-	815	15	279	75	-	1,184	-	_	857	10	235	67	_	1,169	_	_	1,209	10	247	67	-	1,533
Other retail	_	-	_	-	5,385	_	_	5,385	-	_	_	-	5,264	-	_	5,264	_	_	_	_	5,083	-	_	5,083
	-	-	815	15	5,664	75	-	6,569	-	_	857	10	5,499	67	-	6,433	-	-	1,209	10	5,330	67	-	6,616
Non-Retail																								
Corporate	_	-	-	-	-	4,408	1	4,409	-	-	_	-	_	3,200	1	3,201	_	_	-	-	-	3,904	2	3,906
Sovereign	187	-	-	-	-	-	-	187	248	-	_	-	_	-	_	248	223	_	-	-	-	-	-	223
Financial Institutions	_	608	_	-	_	47	_	655	-	447	_	_	_	17	_	464	_	553	_	_	_	17	_	570
	187	608	-	-	-	4,455	1	5,251	248	447	-	-	-	3,217	1	3,913	223	553	-	-	-	3,921	2	4,699
Trading	-	-	-	-	ı	579	-	579	-	_	-	ı	-	519	-	519	-	-	1	ı	-	621	-	621
Total	187	608	815	15	5,664	5,109	1	12,399	248	447	857	10	5,499	3,803	1	10,865	223	553	1,209	10	5,330	4,609	2	11,936

<sup>(1)</sup> 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 (1)

									20	16								
			Q	4					Q	3					Q	2		
(unaudited) (millions of Canadian dollars)	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
Retail																		
Residential mortgage	40,600	5,978	-	-	-	46,578	41,590	5,977	-	-	-	47,567	38,577	5,859	-	-	-	44,436
Qualifying revolving retail	2,795	2,921	-	-	-	5,716	2,763	2,929	-	-	-	5,692	2,688	2,754	-	-	-	5,442
Other retail	13,980	1,301	-	_	93	15,374	14,014	1,279	_	-	13	15,306	13,709	1,253	-	-	13	14,975
	57,375	10,200	-	-	93	67,668	58,367	10,185	-	_	13	68,565	54,974	9,866	-	-	13	64,853
Non-retail																		
Corporate	40,956	14,416	14,418	27	2,890	72,707	41,348	13,376	6,842	11	2,824	64,401	40,855	13,360	4,588	7	2,710	61,520
Sovereign	23,068	3,623	30,559	328	135	57,713	24,345	3,592	14,956	301	108	43,302	19,032	3,829	12,175	321	107	35,464
Financial Institutions	4,074	252	36,835	324	609	42,094	3,398	347	58,296	463	558	63,062	3,793	344	50,981	640	633	56,391
	68,098	18,291	81,812	679	3,634	172,514	69,091	17,315	80,094	775	3,490	170,765	63,680	17,533	67,744	968	3,450	153,375
Trading book	-	-	-	9,623	-	9,623	_	-	-	9,683	-	9,683	-	-	-	10,607	-	10,607
Securitization	616	-	-	-	3,452	4,068	636	-	-	-	2,541	3,177	634	-	-	-	2,444	3,078
Total - Gross Credit Risk	126,089	28,491	81,812	10,302	7,179	253,873	128,094	27,500	80,094	10,458	6,044	252,190	119,288	27,399	67,744	11,575	5,907	231,913
Standardized Approach	10,458	277	2,294	282	491	13,802	10,851	455	2,058	238	453	14,055	9,295	407	1,796	518	410	12,426
AIRB Approach <sup>(2)</sup>	115,631	28,214	79,518	10,020	6,688	240,071	117,243	27,045	78,036	10,220	5,591	238,135	109,993	26,992	65,948	11,057	5,497	219,487
Total - Gross Credit Risk	126,089	28,491	81,812	10,302	7,179	253,873	128,094	27,500	80,094	10,458	6,044	252,190	119,288	27,399	67,744	11,575	5,907	231,913
Adjustment to exposure for collateral																		
Standardized Approach	-	-	(2,152)	(36)	-	(2,188)	-	-	(2,000)	(32)	-	(2,032)	-	-	(1,764)	(400)	-	(2,164)
AIRB Approach <sup>(2)</sup>	_	_	(74,517)	_	_	(74,517)	ı	-	(66,866)	_	_	(66,866)	_	_	(56,595)	_	_	(56,595)
Total - Net Credit Risk	126,089	28,491	5,143	10,266	7,179	177,168	128,094	27,500	11,228	10,426	6,044	183,292	119,288	27,399	9,385	11,175	5,907	173,154

			20	16								20	15					
			Q	1					Q	4					Q	3		
					Other						Other						Other	
(unaudited)		Undrawn	Repo-style	отс	off-balance			Undrawn	Repo-style	отс	off-balance			Undrawn	Repo-style	отс	off-balance	
(millions of Canadian dollars)	Drawn	commitments	transactions	derivatives	sheet items	Total	Drawn	commitments	transactions	derivatives	sheet items	Total	Drawn	commitments	transactions	derivatives	sheet items	Total
Retail																		
Residential mortgage	39,234	5,785	-	-	-	45,019	38,784	5,647	-	-	-	44,431	38,682	5,739	-	-	-	44,421
Qualifying revolving retail	2,660	2,445	-	-	-	5,105	2,708	2,490	-	-	-	5,198	2,608	2,408	-	-	-	5,016
Other retail	13,892	1,304	_	_	13	15,209	13,736	1,302	_	-	14	15,052	13,508	1,313	-	-	14	14,835
	55,786	9,534	-	-	13	65,333	55,228	9,439	_	-	14	64,681	54,798	9,460	-	-	14	64,272
Non-retail																		
Corporate	40,053	13,283	5,142	6	2,592	61,076	38,859	13,344	3,604	6	2,616	58,429	37,554	13,050	3,552	2	2,659	56,817
Sovereign	21,927	3,923	9,779	306	132	36,067	21,026	3,985	9,833	616	124	35,584	19,704	3,438	10,504	304	111	34,061
Financial Institutions	3,468	301	52,256	541	662	57,228	2,139	277	59,420	505	692	63,033	1,888	228	61,376	421	645	64,558
	65,448	17,507	67,177	853	3,386	154,371	62,024	17,606	72,857	1,127	3,432	157,046	59,146	16,716	75,432	727	3,415	155,436
Trading book	-	-	-	11,428	_	11,428	_	-	-	10,318	-	10,318	-	_	-	12,003	-	12,003
Securitization	647	-	_	-	2,311	2,958	646	_	_	-	2,336	2,982	610	_	_	_	2,235	2,845
Total - Gross Credit Risk	121,881	27,041	67,177	12,281	5,710	234,090	117,898	27,045	72,857	11,445	5,782	235,027	114,554	26,176	75,432	12,730	5,664	234,556
Standardized Approach	9,588	419	1,406	585	401	12,399	9,074	339	496	525	431	10,865	9,249	338	1,291	622	436	11,936
AIRB Approach <sup>(2)</sup>	112,293	26,622	65,771	11,696	5,309	221,691	108,824	26,706	72,361	10,920	5,351	224,162	105,305	25,838	74,141	12,108	5,228	222,620
Total - Gross Credit Risk	121,881	27,041	67,177	12,281	5,710	234,090	117,898	27,045	72,857	11,445	5,782	235,027	114,554	26,176	75,432	12,730	5,664	234,556
Adjustment to exposure for	•					•			•	•		•			•	•	•	
collateral																		
Standardized Approach	_	_	(1,379)	(369)	_	(1,748)	-	-	(487)	(282)	-	(769)	-	_	(1,240)	(285)	-	(1,525)
AIRB Approach <sup>(2)</sup>	_	_	(55,798)	_	_	(55,798)	_	_	(63,535)	_	_	(63,535)	_	_	(64,634)	_	_	(64,634)
Total - Net Credit Risk	121,881	27,041	10,000	11,912	5,710	176,544	117,898	27,045	8,835	11,163	5,782	170,723	114,554	26,176	9,558	12,445	5,664	168,397

<sup>(1)</sup> These amounts do not take into account allowances for credit losses nor amounts pledged as collateral. The tables also exclude equity securities.

<sup>(2)</sup> 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>

							2016				
							Q4				T
				Notional of undrawn	Exposure weighted- average	Exposure weighted- average	average	Exposure weighted- average risk weight		Expected	EL adjusted average risk
(unaudited) (millions of Canadian dollars)	1		EAD	commitments	(EAD %)	(PD %)	(LGD %)	asset (RWA %)	RWA	Losses (EL)	weight % <sup>(2)</sup>
Canadian residential mortgage and HELOCs	Risk Grade	PD bands									
Insured Drawn and	Exceptionally low	0.000% - 0.144%	1,724	-	100%	0.08%	18.0%	3.4%	58	0.2	4%
Undrawn <sup>(3)</sup>	Very low	0.145% - 0.506%	2,043	-	100%	0.29%	10.0%	5.0%	103	0.6	5%
	Low	0.507% - 1.116%	1,033	-	100%	0.77%	5.3%	5.4%	56	0.4	6%
	Low	1.117% - 2.681%	602	-	100%	1.74%	3.4%	6.0%	36	0.4	7%
	Medium	2.682% - 9.348%	458	-	100%	4.84%	2.7%	8.5%	39	0.6	10%
	High	9.349% - 99.99%	137	-	100%	26.91%	2.6%	13.9%	19	1.0	23%
	Default	100.00%	68	-	100%	100.00%	2.7%	24.1%	16	1.1	45%
			6,065	_	100%	2.52%	10.0%	5.4%	327	4.3	6%
Uninsured Undrawn <sup>(4)</sup>	Exceptionally low	0.000% - 0.144%	4,086	9,544	56%	0.05%	22.5%	3.1%	128	0.5	3%
	Very low	0.145% - 0.506%	1,644	3,753	72%	0.26%	23.4%	11.3%	187	1.0	12%
	Low	0.507% - 1.116%	166	197	89%	0.72%	23.7%	23.7%	39	0.3	26%
	Low	1.117% - 2.681%	38	49	83%	1.62%	23.5%	40.3%	15	0.1	45%
	Medium	2.682% - 9.348%	12	14	85%	4.23%	23.9%	71.3%	8	0.1	84%
	High	9.349% - 99.99%	2	2	88%	16.78%	23.7%	122.7%	2	0.1	172%
	Default	100.00%	2	3	86%	100.00%	23.1%	288.6%	6	-	289%
			5,950	13,562	62%	0.19%	22.8%	6.5%	385	2.1	7%
(5)	Fusantionally law	0.0000/ 0.4440/	15,750			0.07%	22.7%	4.1%	642	2.6	4%
Uninsured Drawn <sup>(5)</sup>	Exceptionally low	0.000% - 0.144%				0.07%	25.1%	12.5%	1,527	8.4	13%
	Very low Low	0.145% - 0.506% 0.507% - 1.116%	12,230 2,994			0.27%	25.1%	25.3%	757	5.5	28%
	Low	1.117% - 2.681%	845			1.67%	25.3%	44.0%	372	3.6	49%
	Medium	2.682% - 9.348%	431			4.68%	25.5%	79.8%	344	5.2	95%
	High	9.349% - 99.99%	180			26.58%	26.5%	140.3%	252	12.8	230%
	Default	100.00%	63			100.00%	26.1%	207.1%	130	10.2	410%
			32,493			0.65%	24.0%	12.4%	4,024	48.3	14%
Qualifying revolving	Exceptionally low	0.000% - 0.144%	2,899	5,056	58%	0.05%	72.1%	2.4%	69	1.1	3%
credit	Very low	0.145% - 0.506%	1,068	820	81%	0.29%	74.2%	10.6%	113	2.3	13% 30%
	Low	0.507% - 1.116%	645	282	90% 96%	0.78%	73.1%	23.0%	148 282	3.7	30% 65%
	Medium	1.117% - 2.681% 2.682% - 9.348%	602 402	184 55	96% 102%	1.79% 4.51%	79.1% 79.9%	46.8% 88.9%	282 357	8.6 14.4	134%
	High	9.349% - 99.99%	79	4	102 %	21.57%	75.8%	190.2%	151	13.6	405%
	Default	100.00%	21	4	104%	100.00%	7 3.8 % 59.7%	278.1%	58	10.3	902%
	Delautt	100.00%	5,716	6,401	74%	1.34%		20.6%	1,178	54.0	32%
(0)											
Other retail <sup>(6)</sup>	Exceptionally low	0.000% - 0.144%	2,284	1,480	83%	0.07%	41.3%	7.1%	163	0.6	7%
	Very low	0.145% - 0.506%	2,799	391	97%	0.30%	52.4%	27.4%	767	4.4	29%
	Low	0.507% - 1.116%	2,368	307	98%	0.78%	60.8%	55.0%	1,303	11.4	61%
	Low	1.117% - 2.681%	1,646	119	98%	1.72%	64.1%	78.7%	1,295	18.3	93%
	Medium	2.682% - 9.348%	787	63	98%	4.46%	63.9%	92.9%	731	22.3	128%
	High	9.349% - 99.99%	195	9	99%	21.41%	63.8%	138.9%	271	27.4	314%
	Default	100.00%	106 <b>10,185</b>	2,373	99% <b>95%</b>	100.00%	57.3% <b>54.9%</b>	365.7% <b>48.3%</b>	389 <b>4.919</b>	34.7 <b>119.1</b>	773% <b>63%</b>
			60,409	2,373	95% 87%	2.36% 1.14%	32.4%	48.3% 17.9%	10,833	227.8	23%
				22,530	57 <i>R</i>	1.14 /6	J2.4 /A	17.576	20,000	22,.0	2576

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

<sup>(2)</sup> EL adjusted average risk weight is calculated as (RWA + 12.5 x EL) / EAD.

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

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

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

<sup>(6)</sup> Includes all other drawn and undrawn retail exposures.



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

							2016				
					Exposure weighted-	Exposure weighted-	Q3 Exposure weighted-	Exposure weighted-			EL adjusted
				Notional of undrawn	average	average	average	average risk weight		Expected	average risk
(unaudited) (millions of Canadian dollars)	1		EAD	commitments	(EAD %)	(PD %)	(LGD %)	asset (RWA %)	RWA	Losses (EL)	weight % <sup>(2)</sup>
Canadian residential mortgage and HELOCs	Risk Grade	PD bands			4000	0.000/	4 7 70/	2.20/			201
Insured Drawn and	Exceptionally low	0.000% - 0.144%	1,774	_	100%	0.08%	17.7%	3.3%	59	0.2	3%
Undrawn <sup>(3)</sup>	Very low	0.145% - 0.506%	2,304	-	100%	0.30%	10.2%	5.1%	118	0.7	5%
	Low	0.507% - 1.116%	1,094	-	100%	0.77%	5.5%	5.6%	61	0.4	6%
	Low	1.117% - 2.681%	671	-	100%	1.74%	3.5%	6.2%	42	0.4	7%
	Medium	2.682% - 9.348%	951	-	100%	5.47%	2.7%	9.2%	87	1.4	11%
	High	9.349% - 99.99%	162	-	100%	26.20%	2.6%	14.1%	23	1.1	23%
	Default	100.00%	71	_	100%	100.00%	2.9%	23.3%	16	1.4	46%
			7,027		100%	2.75%	9.5%	5.8%	406	5.6	7%
Uninsured Undrawn <sup>(4)</sup>	Exceptionally low	0.000% - 0.144%	4,073	9,447	57%	0.05%	22.5%	3.1%	128	0.5	3%
	Very low	0.145% - 0.506%	1,649	3,704	73%	0.26%	23.4%	11.4%	188	1.0	12%
	Low	0.507% - 1.116%	169	199	88%	0.71%	23.8%	23.8%	40	0.3	26%
	Low	1.117% - 2.681%	41	52	84%	1.63%	23.5%	40.4%	16	0.2	45%
	Medium	2.682% - 9.348%	12	15	83%	4.21%	23.7%	70.3%	8	0.1	83%
	High	9.349% - 99.99%	1	1	89%	18.77%	23.3%	121.4%	1	_	169%
	Default	100.00%	2	2	84%	100.00%	22.7%	284.0%	7	_	284%
			5,947	13,420	62%	0.19%	22.8%	6.5%	388	2.1	7%
(5)											
Uninsured Drawn <sup>(5)</sup>	Exceptionally low	0.000% - 0.144%	15,592			0.07%	22.8%	4.1%	643	2.6	4%
	Very low	0.145% - 0.506%	12,066			0.27%	25.3%	12.5%	1,512	8.3	13%
	Low	0.507% - 1.116%	2,922			0.72%	25.4%	25.4%	742	5.4	28%
	Low	1.117% - 2.681%	820			1.69%	25.4%	44.2%	363	3.5	50%
	Medium	2.682% - 9.348%	365			4.58%	24.9%	76.6%	280	4.2	91%
	High	9.349% - 99.99%	248			26.16%	27.5%	152.7%	378	18.1	245%
	Default	100.00%	58			100.00%	26.9%	193.6%	112	10.5	420%
			32,071			0.68%	24.1%	12.6%	4,030	52.6	15%
Qualifying revolving	Exceptionally low	0.000% - 0.144%	2,814	4,907	58%	0.05%	71.3%	2.3%	66	1.0	3%
credit	Very low	0.145% - 0.506%	971	677	82%	0.29%	71.5%	10.3%	100	2.0	13%
	Low	0.507% - 1.116%	623	258	91%	0.78%	72.4%	22.8%	142	3.5	30%
	Low	1.117% - 2.681%	822	376	99%	1.77%	82.9%	48.6%	398	12.1	67%
	Medium	2.682% - 9.348%	368	50	101%	4.50%	78.7%	87.3%	322	12.9	131%
	High	9.349% - 99.99%	73	4	102%	21.06%	74.2%	186.0%	136	12.1	392%
	Default	100.00%	21	-	105%	100.00%	59.1%	299.5%	63	9.8	885%
			5,692	6,272	75%	1.34%	73.6%	21.6%	1,227	53.4	33%
Oth 11(6)	Formation 11 1	0.000% * * * * * * * * * * * * * * * * * *			0.00	2 2-21					
Other retail <sup>(6)</sup>	Exceptionally low	0.000% - 0.144%	2,277	1,465	84%	0.07%	40.9%	7.1%	162	0.6	7% 29%
	Very low	0.145% - 0.506%	2,770	386	97%	0.30%	51.7%	27.1%	751	4.4	
	Low	0.507% - 1.116%	2,327	297	98%	0.78%	60.7%	54.9%	1,279	11.1	61% 94%
	Low Medium	1.117% - 2.681% 2.682% - 9.348%	1,644 777	119 61	98% 98%	1.73% 4.47%	64.7% 63.8%	79.5% 92.7%	1,305 721	18.5 22.0	94% 128%
	Medium High		200	81	98% 98%	4.47% 21.31%	63.8% 62.5%		273	22.0	128% 312%
	High Default	9.349% - 99.99% 100.00%	200 111	8	98% 98%	21.31% 100.00%	62.5% 56.1%	136.6% 376.4%	2/3 417	28.1 33.5	312% 757%
	Deldull	100.00%	10,106	2,341	98% 95%	2.42%	56.1% 54.7%	376.4% <b>48.6%</b>	4.908	118.2	757% <b>63%</b>
			60,843	22,033	87%	1.22%	32.0%	18.0%	10,959	231.9	23%
				,	-,						3010

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

<sup>(2)</sup> EL adjusted average risk weight is calculated as (RWA + 12.5 x EL) / EAD.

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

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

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

<sup>(6)</sup> Includes all other drawn and undrawn retail exposures.

### AIRB Credit Risk Exposure: Non-retail Portfolios (1) Q3 2016 (unaudited) (millions of Canadian dollars) Corporate AIRB exposures by internal PD grade Average PD Average LGD Average LGD Percentage PD Range **EAD Amount EAD Amount** Average PD Percentage Internal Ratings grades 0.000% S&P rating equivalent Drawn Undrawn Other Total RWA (%) Drawn Undrawn Other Total RWA RWA (%) 0.000 - 0.035 AAA... AA-129 0.03% 35.3% 0.03% 30.1% 0.035 - 0.044 43 350 407 0.04% 39.5% 22 45 0.04% 44.3% 163 0.05% 233 317 443 0.05% 178 0.044 - 0.063 511 540 1,214 51.3% 19% 150 910 53.8% 20% Α 2.5 0.063 - 0.103 1,603 1,001 223 2.827 0.08% 52.4% 624 22% 1,635 999 50 2,684 0.08% 52.4% 594 22% 28% 42.1% 0.103 - 0.170 RRR+ 4,052 2,445 402 6,899 0.13% 40.5% 1,900 4.288 3,014 261 7,563 0.13% 2,223 29% 3.5 0.170 -0.280 BBB 5,914 3,405 608 9,927 0.22% 38.3% 3,264 33% 5,679 2,790 775 9,244 0.22% 37.7% 2,871 31% 0.280 - 0.462 BBB-6,662 2,370 550 9,582 0.36% 36.5% 3,752 39% 7,226 2,120 371 9,717 0.36% 33.3% 3,411 35% 0.462 - 0.762 BB+ 5,660 1,551 135 0.59% 35.7% 3,297 45% 5.486 1,241 6.900 0.59% 35.9% 3.024 44% 7.346 173 35.1% 4,478 55% 0.762 - 1.256 BB 6,255 1,494 414 8,163 0.98% 6.722 1,299 285 8,306 0.98% 34.3% 4,327 52% 5.5 65% 1.256 - 2.070 BB-3,326 646 121 4,093 1.61% 35.3% 2,643 3,015 610 67 3,692 1.61% 34.8% 2,375 64% 2.070 - 3.412 B+ 2,047 333 45 2,425 2.66% 32.4% 1,681 69% 2,023 316 84 2,423 2.66% 34.0% 1,757 73% 3.412 - 5.625 1,142 298 205 1,645 4.38% 30.7% 1,354 82% 1,142 235 204 1,581 4.38% 31.2% 1,267 80% В 89% 5.625 - 9.272 840 82 11 933 7.22% 30.3% 831 778 78 11 867 7.22% 30.1% 745 86% CCC+ 92% 36 9.272 - 15.284 290 51 15 356 11.90% 24.4% 328 224 14 274 11.90% 26.3% 269 98% 15.284 - 25.195 CCC 78 19.62% 34.2% 116 138% 151 153 19.62% 15.1% 99 65% 25.195 - 100 CCC-16 1 18 32.35% 29.0% 22 122% 2 32.35% 11.7% 37 53% 63 70 337 299% 100 CC 345 100.00% 44.1% 1,033 292 20 317 100.00% 35.9% 613 193%

						Q4 2	016							Q3 20	16			
									Soverel	gn AIRB exposur	es by internal PD	grade						
	PD Range					EAD Amount	Average PD	Average LGD		Percentage				EAD Amount	Average PD	Average LGD		Percentage
Internal Ratings grades	0.000%	S&P rating equivalent	Drawn	Undrawn	Other	Total	(%)	(%)	RWA	RWA (%)	Drawn	Undrawn	Other	Total	(%)	(%)	RWA	RWA (%)
1	0.000 - 0.010	AAA AA-	16,302	80	763	17,145	0.01%	7.4%	210	1%	17,679	78	331	18,088	0.01%	7.7%	212	1%
1.5	0.010 - 0.019	A+	4,426	2,874	566	7,866	0.01%	12.9%	231	3%	4,483	2,530	663	7,676	0.01%	12.7%	225	3%
2	0.019 - 0.033	A	1,479	642	328	2,449	0.03%	18.0%	110	4%	1,509	957	503	2,969	0.03%	18.5%	132	4%
2.5	0.033 - 0.060	A-	9	1	1	11	0.05%	16.4%	1	9%	9	1	-	10	0.05%	16.3%	_	!
3	0.060 - 0.107	BBB+	-	-	742	742	0.08%	11.3%	20	3%	-	-	-	-	-	-	_	!
3.5	0.107 - 0.191	BBB	-	-	8	8	0.14%	11.6%	-	-	-	-	-	-	-	-	-	_ !
4	0.191 - 0.342	BBB-	10	-	5	15	0.26%	21.0%	2	13%	10	-	-	10	0.26%	21.0%	2	20%
4.5	0.342 - 0.612	BB+	-	-	-	-	-	-	_	-	-	-	-	-	-	-	_	!
5	0.612 - 1.095	BB	6	-	-	6	0.82%	18.5%	2	33%	6	-	-	6	0.82%	18.5%	2	33%
5.5	1.095 - 1.960	BB-	-	-	-	-	-	-	_	-	-	-	-	-	-	-	_	!
6	1.960 - 3.507	B+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_
6.5	3.507 - 6.276	В	200	25	12	237	4.69%	14.1%	99	42%	200	26	12	238	4.69%	14.1%	101	42%
7	6.276 - 11.231	B-	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	С	-	-	-	-	-	-	_	-	-	-	-	-	-	-	-	!
10	100	D	-	_	-	_	_	_	_	_	_	-	-	_	_	_	_	
Total	·		22,450	3,622	2,425	28,497	0.04%	10.0%	687	2%	23,896	3,592	1,509	28,997	0.04%	10.2%	674	2%

37.6%

25,583

45%

38,965

13,112

2,893

54,970

1.45%

37.0%

23,805

43%

						Q4 2	016							Q3 2	016			
									Financial Insti	tutions AIRB ex	posures by intern	al PD grade						
	PD Range					EAD Amount	Average PD	Average LGD	RWA	Percentage				EAD Amount	Average PD	Average LGD	RWA	Percentage
Internal Ratings grades	0.000%	S&P rating equivalent	Drawn	Undrawn	Other	Total	(%)	(%)	NWA	RWA (%)	Drawn	Undrawn	Other	Total	(%)	(%)	KWA	RWA (%)
1	0.000 - 0.035	AAA AA-	637	-	195	832	0.03%	42.2%	105	13%	214	-	185	399	0.03%	22.9%	41	10%
1.5	0.035 - 0.044	A+	687	-	1,626	2,313	0.04%	48.0%	234	10%	483	-	2,853	3,336	0.04%	48.2%	283	8%
2	0.044 - 0.063	A	203	30	186	419	0.05%	32.3%	45	11%	208	30	3,065	3,303	0.05%	35.7%	221	7%
2.5	0.063 - 0.103	A-	26	-	263	289	0.08%	37.9%	41	14%	89	-	2,004	2,093	0.08%	34.5%	226	11%
3	0.103 - 0.170	BBB+	64	-	118	182	0.13%	50.6%	53	29%	18	-	210	228	0.13%	43.1%	62	27%
3.5	0.170 -0.280	BBB	1,456	-	81	1,537	0.22%	23.0%	318	21%	1,367	50	872	2,289	0.22%	31.1%	586	26%
4	0.280 - 0.462	BBB-	80	152	161	393	0.36%	33.2%	133	34%	139	100	1,046	1,285	0.36%	42.3%	505	39%
4.5	0.462 - 0.762	BB+	310	-	60	370	0.59%	45.9%	225	61%	289	-	76	365	0.59%	48.0%	236	65%
5	0.762 - 1.256	BB	385	8	55	448	0.98%	54.2%	451	101%	233	6	242	481	0.98%	51.9%	454	94%
5.5	1.256 - 2.070	BB-	-	-	13	13	1.61%	50.4%	12	92%	-	-	6	6	1.61%	48.5%	5	83%
6	2.070 - 3.412	B+	-	-	-	-	-	-	-	-	-	-	6	6	2.66%	37.8%	5	83%
6.5	3.412 - 5.625	В	27	-	-	27	4.38%	58.0%	54	200%	31	-	8	39	4.38%	53.2%	70	179%
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	•		3,875	190	2,758	6,823	0.22%	39.8%	1,671	24%	3,071	186	10,573	13,830	0.23%	39.1%	2,694	19%

	Q4 :	2016
	Notional undrawn	EAD on undrawn
Credit commitments - AIRB Non-retail portfolios	commitments	commitments <sup>(2)</sup>
Corporate	36,917	14,230
Sovereign	8,552	3,622
Financial Institutions	379	190
Total	45,848	18,042

Q3 2	2016
Notional undrawn commitments	EAD on undrawn commitments <sup>(2)</sup>
34,019	13,112
8,792	3,592
373	186
43,184	16,890

38,467

14,230

3,696

56,393

1.33%

9.5

10

Total

100

100

<sup>(1)</sup> The data presented above take into account permissible netting and exclude SME-Retail Portfolio, trading related portfolio and Equity.

<sup>(2)</sup> EAD undrawn commitments are the undrawn commitments (notional amount) that is currently undrawn but expected to be drawn in the event of a default.

								AIR	B Cred	it Risk	Expos	ure: N	on-reta	ail Portf	olios <sup>(1)</sup>	(conti	nued)									
						Q2 2	016							Q1 20	16							Q4 20	15			
(unaudited) (millio	PD Range	dollars) S&P rating				EAD Amount	Average PD Av	verage LGD		Percentage			Corporate	e AIRB exposure EAD Amount	Average PD			Percentage				AD Amount	Average PD	Average LGD		Percentage
	0.000%	equivalent	Drawn	Undrawn	Other	Total	(%)	(%)	RWA	RWA (%)	Drawn	Undrawn	Other	Total	(%)	(%)	RWA	RWA (%)	Drawn	Undrawn	Other	Total	(%)	(%)	RWA	RWA (%
1	0.000 - 0.035 0.035 - 0.044	AAA AA- A+	31 42	14 11	- 75	45 128	0.03%	27.1% 39.7%	2	4% 5%	27 32	5	- 50	32 89	0.03% 0.04%	20.5% 40.4%	1	3% 6%	26 35	2	10	28 50	0.03%	17.6% 26.0%	1	4°
2	0.044 - 0.063	A	274	350	424	1,048	0.05%	48.1%	188	18%	361	508	325	1,194	0.05%	48.1%	222	19%	307	474	313	1,094	0.05%	48.9%	209	199
2.5	0.063 - 0.103	A-	1,800	1,171	59	3,030	0.08%	47.3%	637	21%	1,997	1,175	60	3,232	0.08%	46.3%	659	20%	1,874	1,198	61	3,133	0.08%	45.3%	621	209
3 5	0.103 - 0.170 0.170 -0.280	BBB+ BBB	4,268 5,400	2,889 2,641	154 790	7,311 8,831	0.13% 0.22%	41.6% 38.1%	2,114 2,912	29% 33%	4,399 5,199	2,574 2,727	152 798	7,125 8,724	0.13% 0.22%	40.4% 37.2%	2,002 2,821	28% 32%	4,418 5,448	2,814 2,759	151 755	7,383 8,962	0.13% 0.22%	38.8% 37.9%	1,994 2,955	27 <sup>9</sup> 33 <sup>9</sup>
4	0.280 - 0.462	BBB-	6,633	2,256	386	9,275	0.36%	35.0%	3,618	39%	5,961	2,031	357	8,349	0.36%	37.5%	3,511	42%	5,809	2,344	374	8,527	0.36%	37.8%	3,589	429
4.5	0.462 - 0.762	BB+	5,727	1,184	190	7,101	0.59%	36.3%	3,279	46%	5,532	1,172	184	6,888	0.59%	36.2%	3,182	46%	4,822	909	187	5,918	0.59%	34.7%	2,639	459
5 5	0.762 - 1.256 1.256 - 2.070	BB BB-	6,695 2,770	1,481 507	306 119	8,482 3,396	0.98% 1.61%	35.3% 33.2%	4,930 2,114	58% 62%	6,437 2,962	1,491 650	307 142	8,235 3,754	0.98% 1.61%	35.8% 35.7%	4,889 2,563	59% 68%	6,483 2,917	1,284 710	404 158	8,171 3,785	0.98% 1.61%	35.6% 36.2%	4,837 2,608	59°
6	2.070 - 3.412	B+	2,770	324	88	2,498	2.66%	33.9%	1,850	74%	1,892	421	175	2,488	2.66%	35.5%	1,926	77%	1,678	383	142	2,203	2.66%	36.1%	1,756	809
6.5	3.412 - 5.625	В	1,029	191	141	1,361	4.38%	33.7%	1,153	85%	1,108	147	74	1,329	4.38%	35.2%	1,153	87%	1,192	163	73	1,428	4.38%	35.3%	1,233	869
7	5.625 - 9.272 9.272 - 15.284	B- CCC+	896 218	93 26	27	1,016 246	7.22% 11.90%	35.0% 28.4%	1,068 263	105% 107%	894 209	120 27	35	1,049 237	7.22% 11.90%	40.4% 43.9%	1,287 369	123% 156%	870 182	91 26	31	992 208	7.22% 11.90%	36.7% 39.7%	1,066 294	1079 1419
8	15.284 - 25.195		147	1	_	148	19.62%	12.0%	74	50%	209	2/	-	31	19.62%	43.9%	53	171%	21	1	_	208	19.62%	36.4%	32	1417
8.5	25.195 - 100	CCC-	60	1	5	66	32.35%	11.7%	36	55%	65	2	-	67	32.35%	59.3%	188	281%	81	1	3	85	32.35%	64.8%	266	3139
9	100 100	CC C	348	1	1	350	100.00%	40.0%	855	244%	268	1	1	270	100.00%	39.5%	540	200%	275	3	-	278	100.00%	40.9%	576	2079
10	100	D	_	_	_	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	
Total			38,424	13,141	2,767		1.56%	37.3%	25,100	46%	37,372	13,060	2,661	53,093	1.40%	38.0%	25,371	48%	36,438	13,167	2,662	52,267	1.43%	37.7%	24,679	47%
						Q2 2	016						Sovereig	Q1 20 n AIRB exposure	)16 s by internal Di	) grade						Q4 20	15			
Internal	PD Range	S&P rating				EAD Amount	Average PD Av	verage LGD	RWA	Percentage			Jording	EAD Amount	Average PD	Average LGD	RWA	Percentage				AD Amount	Average PD	Average LGD	RWA	Percentage
Ratings grades	0.000%	equivalent	Drawn	Undrawn	Other	Total	(%)	(%)		RWA (%)	Drawn	Undrawn	Other	Total	(%)	(%)		RWA (%)	Drawn	Undrawn	Other	Total	(%)	(%)		RWA (%
1.5	0.000 - 0.010 0.010 - 0.019	AAA AA- A+	12,220 4,733	80 2,771	353 528	12,653 8,032	0.01% 0.01%	5.0% 12.8%	123 233	1% 3%	16,301 4,088	122 2,946	355 1,110	16,778 8,144	0.01% 0.01%	10.5% 13.3%	342 209	2% 3%	15,823 3,664	130 3,295	658 618	16,611 7,577	0.01% 0.01%	10.4% 13.6%	329 220	2%
2	0.019 - 0.033	A	1,495	955	507	2,957	0.03%	18.4%	136	5%	1,323	826	1,110	2,161	0.01%	18.2%	104	5%	1,269	532	11	1,812	0.01%	18.1%	80	49
2.5	0.033 - 0.060	A-	7	1	-	8	0.05%	14.6%	-	-	7	1	-	8	0.05%	14.6%	1	13%	7	1	-	8	0.05%	14.6%	-	-
3 5	0.060 - 0.107 0.107 - 0.191	BBB+ BBB	_	_	-	-	_	_	-	-	_	_	_	-	_	_	_	-	-	-	-	_	-	_	-	-
4	0.107 - 0.191	BBB-	19	_	_	19	0.26%	14.5%	2	11%	21	_	_	21	0.26%	14.5%	2	10%	_	_	_	-	_	_	-	_
4.5	0.342 - 0.612	BB+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5 5	0.612 - 1.095	BB BB-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	1.095 - 1.960 1.960 - 3.507	B+	_	_	_	_	_	_	_	_	_	_	_	-		_	_	-	15	_	_	15	2.62%	18.5%	8	53%
6.5	3.507 - 6.276	В	200	22	10	232	4.69%	14.4%	103	44%	-	28	8	36	4.69%	14.1%	14	39%	-	27	8	35	4.69%	14.1%	14	40%
7 7 5	6.276 - 11.231 11.231 - 20.099	B- CCC+	_	_	-	-	_	_	-	-	_	_	_	-	_	_	_	-	-	-	-	_	-	_	-	_
8	20.099 - 35.967		_	_	_	_	_	-	_	_	_		_	-	_	_	_	-	_	_	_		_	_	-	_
8.5	35.967 - 100	CCC-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	100	CC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	100	D	_	_	_	_	_	-	_	_	_		_	-	_	_	_	-	_	_	_		_	_	-	_
Total			18,674	3,829	1,398		0.04%	9.4%	597	2%	21,740	3,923	1,485	27,148	0.02%	11.9%	672	2%	20,778	3,985	1,295	26,058	0.02%	11.9%	651	2%
						Q2 2	016							Q1 20 utions AIRB exp								Q4 20	15			
Internal	PD Range	S&P rating				EAD Amount	Average PD Av	verage LGD	RWA	Percentage			rinancial instit	EAD Amount	Average PD	Average LGD	RWA	Percentage				AD Amount	Average PD	Average LGD	RWA	Percentage
Ratings grades	0.000%	equivalent	Drawn	Undrawn	Other	Total	(%)	(%)		RWA (%)	Drawn	Undrawn	Other	Total	(%)	(%)		RWA (%)	Drawn	Undrawn	Other	Total	(%)	(%)		RWA (%)
1.5	0.000 - 0.035 0.035 - 0.044	AAA AA- A+	401 541	_	2,605 492	3,006 1,033	0.03%	60.4% 46.2%	232 180	8% 17%	126 327		2,504 416	2,630 743	0.03% 0.04%	64.0% 50.1%	214 93	8% 13%	309 327	_	2,533 493	2,842 820	0.03%	64.1% 45.0%	381 109	13% 13%
2	0.044 - 0.063	Α	148	30	2,455	2,633	0.05%	35.6%	176	7%	269	30	2,425	2,724	0.05%	37.1%	179	7%	152	30	1,951	2,133	0.05%	37.5%	178	89
2.5	0.063 - 0.103 0.103 - 0.170	A- BBB+	474 145	-	1,459 366	1,933 511	0.08%	23.0% 42.1%	189 124	10% 24%	251 259	-	1,611 434	1,862 693	0.08%	19.0% 39.5%	141 161	8% 23%	237 287	- 13	1,804 423	2,041 723	0.08%	16.7% 41.9%	157 197	89 279
3.5	0.103 - 0.170	BBB	1,335	48	746	2,129	0.13%	29.6%	536	25%	1,391		434	1,825	0.13%	22.7%	374	20%	417	-	253	670	0.13%	44.8%	274	419
4	0.280 - 0.462	BBB-	181	100	940	1,221	0.36%	37.3%	443	36%	268	100	1,361	1,729	0.36%	35.8%	588	34%	157	93	1,203	1,453	0.36%	35.0%	554	389
4.5	0.462 - 0.762 0.762 - 1.256	BB+ BB	288 98	5	91 27	384 127	0.59%	50.0% 41.0%	281 90	73% 71%	324 11	5	268 200	597 213	0.59% 0.98%	50.7% 42.1%	415 157	70% 74%	230	5	284 41	519 50	0.59% 0.98%	42.6% 47.0%	343 39	669 789
5.5	1.256 - 2.070	BB-	-	-	5	5	1.61%	45.1%	5	100%	-	_	5	5	1.61%	47.8%	4	80%	-	-	3	3	1.61%	52.8%	4	1339
6	2.070 - 3.412	B+		-	4	4	2.66%	36.2%	3	75%	-	-	1	1	2.66%	30.6%	1	100%	-	-	3	3	2.66%	28.1%	2	679
7	3.412 - 5.625 5.625 - 9.272	B B-	48	-	_	48	4.38%	58.2%	107	223%	59	-	-	59	4.38%	57.7%	129	219%	16	_	_	16	4.38%	58.5%	31	1949
7.5	9.272 - 15.284	CCC+		-	-	_	-	-		-	-		_	-	-	-	_	-	-	-	-	-	-	_	-	_
8	15.284 - 25.195		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	25.195 - 100 100	CCC-		_	_	_	_	_		_	_		_	_	_	_	_	_	_	_	_	_	_	_	_	_
9.5	100	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 Total	100	D	3,659	185	9,190	13,034	0.13%	40.3%	2,366	18%	3,285	137	9,659	13,081	0.17%	39.4%	- 2,456	19%	2,139	143	- 8,991	11,273	0.16%	41.7%	2,269	209
rout		1	3,039	02.2	9,190	13,034	U.1370	40.276	2,300	10.90	3,203	01.2		13,001	0.1/ %	37.470	4,436	1770	2,139	04-24	0,771	11,2/3	U.1076	41./70	2,209	207
			Notic	onal undrawn		D on undrawn				F	Notion	al undrawn		O on undrawn				F	Notio	nal undrawn		n undrawn				
Credit commitme	ents - AIRB Non-	retail portfolios		commitments		ommitments <sup>(2)</sup>				L		ommitments	C	ommitments <sup>(2)</sup>				L		commitments	соп	mitments <sup>(2)</sup>				
Corporate Sovereign				34,105 9,393		13,141 3,829						33,797 9,074		13,060 3,923						34,026 9,114		13,167 3,985				
Financial Institution	one		1	370		185						273		137						285		143				

<sup>(1)</sup> 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>

						20	16					
			Q	4					Q	3		
(unaudited) (millions of Canadian dollars)	Average estimated (PD %)	Actual default rate (%)	(0)	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>
Retail portfolio <sup>(5)</sup>												
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%
Wholesale & Sovereign portfolio <sup>(8)</sup>												
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

						20	16					
			Q	2					Q	1		
(unaudited) (millions of Canadian dollars)	Average estimated (PD %)	Actual default rate (%)	(-)	Actual (LGD %) <sup>(3)</sup>	Estimated (EAD %) <sup>(4)</sup>	Actual (EAD %) <sup>(4)</sup>	Average estimated (PD %)		Average estimated (LGD %) <sup>(2)</sup>		Estimated (EAD %) <sup>(4)</sup>	Actual (EAD %) <sup>(4)</sup>
Retail portfolio <sup>(5)</sup>												
Uninsured residential mortgages incl. Home equity line of credit <sup>(6)</sup>	0.41%	0.17%	28.40%	9.43%	97.09%	76.12%	0.43%	0.20%	28.06%	6.92%	96.89%	78.91%
Insured residential mortgages <sup>(7)</sup>	1.37%	0.90%	2.86%	na	na	na	1.39%	0.93%	2.80%	na	na	na
Qualifying revolving retail	1.37%	1.27%	72.62%	78.60%	99.95%	97.69%	1.43%	1.21%	72.43%	78.68%	99.69%	97.48%
Other retail	1.78%	1.71%	70.63%	60.15%	93.01%	94.07%	1.81%	1.77%	70.02%	61.30%	92.86%	93.31%
Wholesale & Sovereign portfolio <sup>(8)</sup>												
Corporate	1.71%	0.55%	42.08%	30.77%	82.90%	75.78%	1.69%	0.56%	41.99%	28.98%	82.85%	79.03%
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>	0.61%	0.00%	39.00%	na	100.00%	na	0.62%	0.00%	39.00%	na	100.00%	na

- (1) Actual and estimated parameters are reported on a three-month lag. For example, for Q4 2016, estimated percentages are as of July 31, 2015 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)

										2016								
(unaudited)				Q4						Q3						Q2		
(millions of Canadian dollars)									EAD - Gro	ss Exposure <sup>(1)</sup>								
		Undrawn		Repo-style	ОТС			Undrawn		Repo-style	ОТС			Undrawn		Repo-style	отс	
Non-Retail Portfolio	Drawn	commitments	Other	transactions	Derivatives	Total	Drawn	commitments	Other	transactions	Derivatives	Total	Drawn	commitments	Other	transactions	Derivatives	Total
Agriculture	3,572	349	6	_	_	3,927	3,688	227	6	-	-	3,921	3,604	238	6	-	-	3,848
Oil and Gas	2,126	1,510	62	-	-	3,698	2,559	1,269	58	-	-	3,886	2,911	1,572	64	-	-	4,547
Mining	527	704	33	-	-	1,264	317	738	34	-	-	1,089	357	493	30	-	-	880
Utilities	2,093	1,638	465	-	_	4,196	2,240	1,660	452	-	-	4,352	2,071	1,901	380	-	-	4,352
Construction <sup>(2)</sup>	2,200	1,151	212	-	-	3,563	2,249	1,122	210	-	-	3,581	2,226	1,186	207	-	-	3,619
Manufacturing	3,516	2,065	231	-	_	5,812	3,765	1,921	258	-	-	5,944	3,615	1,968	250	-	-	5,833
Wholesale Trade	1,918	723	39	-	-	2,680	1,832	652	46	-	-	2,530	1,819	628	53	-	-	2,500
Retail Trade	2,790	913	45	-	_	3,748	2,695	1,106	45	-	-	3,846	3,159	785	46	-	-	3,990
Transportation	2,812	1,753	97	17	-	4,679	2,426	1,631	94	-	-	4,151	1,886	1,596	75	-	-	3,557
Communications	1,511	686	285	-	-	2,482	1,467	652	283	-	-	2,402	1,416	631	279	-	-	2,326
Finance and Insurance	22,090	1,440	865	66,450	679	91,524	23,136	1,311	751	75,497	775	101,470	18,142	1,328	767	64,283	968	85,488
Real Estate <sup>(3)</sup>	7,746	814	29	61	_	8,650	7,669	697	27	72	-	8,465	7,595	675	30	70	-	8,370
Professional Services	1,174	721	320	-	-	2,215	1,137	730	330	-	-	2,197	1,069	662	348	-	-	2,079
Education & Health Care	2,473	1,325	7	8	_	3,813	2,524	1,224	7	-	-	3,755	2,526	1,506	6	-	-	4,038
Other Services	4,485	1,193	294	3	-	5,975	4,336	1,056	220	-	-	5,612	4,102	1,094	295	1,175	-	6,666
Government	4,715	1,287	23	14,716	_	20,741	4,657	1,170	17	4,525	-	10,369	4,939	1,153	14	2,216	-	8,322
Other	2,350	19	621	557	_	3,547	2,394	149	652	-	_	3,195	2,243	117	600	_	-	2,960
Total — Non-retail <sup>(4)</sup>	68,098	18,291	3,634	81,812	679	172,514	69,091	17,315	3,490	80,094	775	170,765	63,680	17,533	3,450	67,744	968	153,375

Ī			2	016								20	)15					
				Q1						Q4						Q3		
									EAD - Gro	ss Exposure <sup>(1)</sup>								
		Undrawn		Repo-style	ОТС			Undrawn		Repo-style	ОТС			Undrawn		Repo-style	ОТС	
Non-Retail Portfolio	Drawn	commitments	Other	transactions	Derivatives	Total	Drawn	commitments	Other	transactions	Derivatives	Total	Drawn	commitments	Other	transactions	Derivatives	Total
Agriculture	3,586	190	6	-	-	3,782	3,509	190	6	_	_	3,705	3,314	178	6	-	-	3,498
Oil and Gas	3,204	1,661	62	-	-	4,927	3,175	1,921	66	_	_	5,162	3,244	2,154	57	-	-	5,455
Mining	494	397	34	-	-	925	391	380	124	_	_	895	381	449	110	-	-	940
Utilities	1,979	1,944	374	-	-	4,297	1,758	2,023	367	-	_	4,148	1,646	1,642	240	-	-	3,528
Construction <sup>(2)</sup>	2,179	1,191	210	-	-	3,580	2,185	1,263	207	_	_	3,655	2,273	1,312	215	-	-	3,800
Manufacturing	3,641	2,125	266	-	-	6,032	3,573	1,978	268	_	_	5,819	3,656	1,826	283	-	-	5,765
Wholesale Trade	1,735	634	55	-	-	2,424	1,814	533	50	_	_	2,397	1,760	552	66	-	-	2,378
Retail Trade	3,094	851	51	-	-	3,996	2,830	1,002	49	-	-	3,881	2,917	921	58	-	-	3,896
Transportation	2,062	1,573	79	-	-	3,714	1,932	1,562	80	-	-	3,574	1,840	1,667	77	-	-	3,584
Communications	1,321	522	288	-	-	2,131	1,212	545	283	_	_	2,040	1,185	534	279	-	-	1,998
Finance and Insurance	19,801	1,568	671	66,444	852	89,336	18,847	1,670	660	72,179	1,127	94,483	16,182	1,379	817	74,218	727	93,323
Real Estate <sup>(3)</sup>	7,914	587	32	59	-	8,592	7,508	554	32	63	_	8,157	7,119	623	46	70	-	7,858
Professional Services	943	715	352	_	-	2,010	980	685	348	_	_	2,013	1,051	639	351	-	-	2,041
Education & Health Care	2,758	1,073	7	-	-	3,838	2,453	1,069	6	-	_	3,528	2,566	738	5	-	-	3,309
Other Services	4,049	1,077	286	-	_	5,412	3,988	988	250	_	_	5,226	4,521	868	199	112	_	5,700
Government	4,314	1,238	11	674	1	6,238	3,974	1,243	11	615	-	5,843	3,706	1,233	7	1,032	-	5,978
Other	2,374	161	602	-	_	3,137	1,895	-	625	-	_	2,520	1,785	1	599	_	_	2,385
Total – Non-retail <sup>(3)</sup>	65,448	17,507	3,386	67,177	853	154,371	62,024	17,606	3,432	72,857	1,127	157,046	59,146	16,716	3,415	75,432	727	155,436

<sup>(1)</sup> EAD amounts are after securitization and exclude trading related portfolio.

 $<sup>\</sup>ensuremath{\text{(2)}}\ \mbox{Includes some public private partnership and project finance loans.}$ 

<sup>(3)</sup> Includes residential mortgages 5 units and more.

<sup>(4)</sup> This total excludes SME retail exposure.

### Gross Credit Risk Exposure at Default in Europe (1)

									201	6								
			Q/	4					Q:						Q:	2		
(unaudited) (millions of Canadian dollars)	Drawn	Undrawn commitments		OTC derivatives	Other off-balance sheet items <sup>(3)</sup>	Total	Drawn	Undrawn commitments		OTC derivatives	Other off-balance sheet items <sup>(3)</sup>		Drawn	Undrawn commitments	Repo-style transactions <sup>(2)</sup>	OTC derivatives	Other off-balance sheet items <sup>(3)</sup>	
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ireland	-	-	1,183	2	-	1,185	-	-	1,675	3	-	1,678	-	-	1,503	1	-	1,504
Italy	-	-	-	-	1	1	-	-	-	-	1	1	-	-	-	-	1	1
Portugal	-	-	-	-	-	-	-	-	-	-	-	_	-	-	-	-	-	-
Spain	25	-	-	-	91	116	20	I	-	-	90	110	25	-	-	-	132	157
Total GIIPS	25	-	1,183	2	92	1,302	20	-	1,675	3	91	1,789	25	_	1,503	1	133	1,662
France	157	41	1,208	175	296	1,877	54	33	1,210	261	292	1,850	21	-	154	91	285	551
Germany	11	-	-	7	41	59	1	-	-	16	51	68	-	-	-	38	51	89
United Kingdom	57	5	2,377	961	4	3,404	70	5	3,915	834	5	4,829	71	5	3,660	744	5	4,485
Other Europe	45	-	1,661	155	19	1,880	68	-	1,237	193	19	1,517	139	-	852	253	18	1,262
Total - Credit Risk	295	46	6,429	1,300	452	8,522	213	38	8,037	1,307	458	10,053	256	5	6,169	1,127	492	8,049

				Other					Other					Other	
Adjustment to exposure for		Undrawn	Net Repo-Style transactions	off-balance			Undrawn	Net Repo-Style transactions	off-balance			Undrawn	Net Repo-Style transactions	off-balance	
collateral	Drawn	commitments	and OTC derivatives	sheet items <sup>(3)</sup>	Total	Drawn	commitments	and OTC derivatives	sheet items <sup>(3)</sup>	Total	Drawn	commitments	and OTC derivatives	sheet items <sup>(3)</sup>	Total
Total - Net Credit Risk <sup>(4)</sup>	295	46	1,684	452	2,477	213	38	1,700	458	2,409	256	5	1,538	492	2,291

			201	16								20	15					
			Qt	l					Q	4					Q	3		
(unaudited) (millions of Canadian dollars)	Drawn	Undrawn commitments	Repo-style transactions <sup>(2)</sup>	OTC derivatives		Total	Drawn	Undrawn commitments		OTC derivatives		Total	Drawn	Undrawn commitments	Repo-style transactions <sup>(2)</sup>	OTC derivatives	Other off-balance sheet items <sup>(3)</sup>	Total
Greece	-	-	-		-	-	-	-	-	-	-	_	-	-	-	-	-	-
Ireland	1	-	865	1	-	867	-	-	784	-	-	784	-	-	-	-	-	-
Italy	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	1	1
Portugal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spain	25	-	-	-	134	159	30	-	-	1	102	133	25	-	-	2	133	160
Total GIIPS	26	-	865	1	135	1,027	30	_	784	1	102	917	25	_	_	2	134	161
France	98	-	1,254	250	285	1,887	47	4	1,794	502	220	2,567	89	2	2,419	505	286	3,301
Germany	4	-	-	27	57	88	6	103	-	23	44	176	1	108	254	23	42	428
United Kingdom	135	5	4,452	1,058	13	5,663	269	5	3,831	786	10	4,901	661	2	4,946	876	1	6,486
Other Europe	165	-	1,076	286	21	1,548	195	12	847	308	16	1,378	71	5	951	377	20	1,424
Total - Credit Risk	428	5	7,647	1,622	511	10,213	547	124	7,256	1,620	392	9,939	847	117	8,570	1,783	483	11,800

				Other					Other					Other	
Adjustment to exposure for		Undrawn	Net Repo-Style transactions	off-balance			Undrawn	Net Repo-Style transactions				Undrawn	Net Repo-Style transactions	off-balance	
collateral	Drawn	commitments	and OTC derivatives	sheet items(3)	Total	Drawn	commitments	and OTC derivatives	sheet items(3)	Total	Drawn	commitments	and OTC derivatives	sheet items(3)	Total
Total - Net Credit Risk <sup>(4)</sup>	428	5	1,838	511	2,782	547	124	1,969	392	3,032	847	117	1,802	483	3,249

<sup>(1)</sup> 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.

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

<sup>(3)</sup> 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)		20	16			20	15			20	14			YTD	
Formation of Gross Impaired Loans <sup>(1)</sup> (by sector)	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	2016	2015	2014
Opening balance	452	521	434	457	449	446	389	486	411	417	417	395	457	486	395
Write-offs															
Personal and Commercial															
Retail	(20)	(18)	(20)	(23)	(23)	(18)	(21)	(21)	(19)	(18)	(19)	(20)	(81)	(83)	(76)
Commercial	(19)	(66)	(5)	(20)	(11)	(16)	(15)	(62)	(14)	(10)	(10)	(3)	(110)	(104)	(37)
Wealth Management	(1)	(2)	(1)	(2)	(1)	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(6)	(4)	(5)
Financial Markets															
Corporate	_	-	-	-	-	(6)	-	_	-	-	_	_	-	(6)	_
Other	-	-	-	_	-	-	-	-	-	-	-	_	_	_	_
Total write-offs	(40)	(86)	(26)	(45)	(35)	(41)	(37)	(84)	(35)	(29)	(30)	(24)	(197)	(197)	(118)
Formation															
Personal and Commercial															
Retail	17	11	21	23	23	16	28	22	29	20	15	36	72	89	100
Commercial	60	6	89	(5)	19	24	65	(37)	79	2	15	9	150	71	105
Wealth Management	2	(1)	3	4	1	4	1	2	2	1	-	1	8	8	4
Financial Markets															
Corporate	-	-	_	-	_	-	-	_	-	-	-	-	-	_	_
Other	1	1	-	-	-	-	-	_	-	-	-	_	2	_	-
Total formation	80	17	113	22	43	44	94	(13)	110	23	30	46	232	168	209
Closing balance	492	452	521	434	457	449	446	389	486	411	417	417	492	457	486

		20	16			20	15			20	14			YTD	
Formation of Gross Impaired Loans (by activity)	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	2016	2015	2014
Opening balance	452	521	434	457	449	446	389	486	411	417	417	395	457	486	395
Classified as impaired during the period	190	204	211	145	135	149	187	107	196	142	139	127	750	578	604
Transferred to not impaired during the period	(4)	(6)	(6)	(3)	(5)	(7)	(8)	(3)	(4)	(6)	(7)	(2)	(19)	(23)	(19)
Net repayments	(80)	(158)	(66)	(91)	(64)	(78)	(62)	(100)	(63)	(88)	(77)	(57)	(395)	(304)	(285)
Write-offs	(59)	(104)	(45)	(64)	(53)	(60)	(54)	(97)	(50)	(48)	(48)	(40)	(272)	(264)	(186)
Recoveries of loans previously written off	(7)	(6)	(5)	(4)	(5)	(5)	(7)	(5)	(3)	(4)	(5)	(5)	(22)	(22)	(17)
Disposals of loans	_	-	-	-	-	-	-	(1)	(1)	(2)	(2)	(1)	-	(1)	(6)
Exchange and other movements	_	1	(2)	(6)	_	4	1	2	-	-	_	_	(7)	7	_
Closing balance	492	452	521	434	457	449	446	389	486	411	417	417	492	457	486

		20	16			20	15			20	14			YTD	
Allowance for Credit Losses	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	2016	2015	2014
Allowances at beginning	780	837	566	569	561	563	561	604	593	592	589	578	569	604	578
Write-offs	(66)	(110)	(50)	(68)	(58)	(65)	(61)	(103)	(54)	(54)	(54)	(47)	(294)	(287)	(209)
Recoveries of amounts written off in previous years	7	8	5	5	5	6	5	5	7	4	4	6	25	21	21
Charge to income statement (provision for credit losses) <sup>(2)</sup>	59	45	317	63	61	56	57	54	57	49	51	51	484	228	208
Disposal of loans	-	-	-	-	-	_	-	1	1	2	2	1	-	1	6
Exchange and other movements	1	_	(1)	(3)	-	1	1	_	_	_	_	_	(3)	2	_
Allowances at end	781	780	837	566	569	561	563	561	604	593	592	589	781	569	604

<sup>(1)</sup> Credit card receivables are not included.

<sup>(2)</sup> During the second quarter of 2016, a \$250 million sectoral provision for credit losses was recorded for producers and service companies in the oil and gas sector.

# **Gross Credit Exposure by Residual Contractual Maturity**(1)

						20	16					
(unaudited) (millions of Canadian dollars)		Q.	4			Q	3			Q2	1	
	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
Retail												
Residential mortgages	27,348	16,855	305	44,508	27,940	16,793	312	45,045	27,803	15,024	269	43,096
Qualifying revolving retail	5,716	-	-	5,716	5,692	-		5,692	5,442	-	-	5,442
Other retail	5,181	2,837	2,167	10,185	5,197	2,832	2,077	10,106	5,165	2,841	1,908	9,914
	38,245	19,692	2,472	60,409	38,829	19,625	2,389	60,843	38,410	17,865	2,177	58,452
Non-retail												
Corporate	47,848	17,643	2,061	67,552	40,456	17,015	2,019	59,490	37,654	16,231	3,077	56,962
Sovereign	40,121	11,829	5,144	57,094	26,525	10,899	5,430	42,854	18,659	10,441	6,006	35,106
Financial Institutions	39,702	1,880	2	41,584	60,350	1,925	43	62,318	53,799	1,979	16	55,794
	127,671	31,352	7,207	166,230	127,331	29,839	7,492	164,662	110,112	28,651	9,099	147,862
Trading book	1,322	4,847	3,195	9,364	1,069	4,958	3,426	9,453	2,201	5,344	2,550	10,095
Total	167,238	55,891	12,874	236,003	167,229	54,422	13,307	234,958	150,723	51,860	13,826	216,409

		201	16					20	15			
(unaudited) (millions of Canadian dollars)		Q1	l			Q.	4			Q	3	
	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
Retail												
Residential mortgages	28,416	15,175	244	43,835	28,320	14,630	313	43,263	28,107	14,392	390	42,889
Qualifying revolving retail	5,105	-	-	5,105	5,198	-	-	5,198	5,016	-	_	5,016
Other retail	5,193	2,768	1,863	9,824	5,265	2,736	1,786	9,787	5,278	2,741	1,732	9,751
	38,714	17,943	2,107	58,764	38,783	17,366	2,099	58,248	38,401	17,133	2,122	57,656
Non-retail												
Corporate	34,930	18,286	3,451	56,667	33,479	18,609	3,140	55,228	30,851	19,572	2,488	52,911
Sovereign	19,110	10,778	5,992	35,880	19,200	10,345	5,791	35,336	19,632	8,397	5,809	33,838
Financial Institutions	54,571	1,984	18	56,573	57,338	2,749	2,482	62,569	57,807	3,836	2,345	63,988
	108,611	31,048	9,461	149,120	110,017	31,703	11,413	153,133	108,290	31,805	10,642	150,737
Trading book	1,973	5,376	3,500	10,849	1,050	5,714	3,035	9,799	2,139	6,177	3,066	11,382
Total	149,298	54,367	15,068	218,733	149,850	54,783	16,547	221,180	148,830	55,115	15,830	219,775

<sup>(1)</sup> 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**

			20	16		
(unaudited) (millions of Canadian dollars)	Q	4	Q	3	Q	2
Total exposure covered by:	Standardized <sup>(1)</sup>	AIRB <sup>(2)</sup>	Standardized <sup>(1)</sup>	AIRB <sup>(2)</sup>	Standardized <sup>(1)</sup>	AIRB <sup>(2)</sup>
Retail						
Residential mortgage	427	5,364	1,146	6,259	963	4,737
Qualifying revolving retail	_	_	_	-	-	-
Other retail	2,650	195	2,578	195	2,694	203
	3,077	5,559	3,724	6,454	3,657	4,940
Non-retail						
Corporate	797	2,096	712	2,099	1,016	2,178
Sovereign	_	_	-	-	-	-
Financial Institutions	_	I	ı	-	_	_
	797	2,096	712	2,099	1,016	2,178
Trading book	-	10	1	16	1	17
Total	3,874	7,665	4,436	8,569	4,673	7,135

	2016			20	15	
(unaudited) (millions of Canadian dollars)	Q1		Q	4	Q	3
Total exposure covered by:	Standardized <sup>(1)</sup>	AIRB <sup>(2)</sup>	Standardized <sup>(1)</sup>	AIRB <sup>(2)</sup>	Standardized <sup>(1)</sup>	AIRB <sup>(2)</sup>
Retail						
Residential mortgage	541	5,534	593	5,615	948	6,106
Qualifying revolving retail	-	-		_	_	-
Other retail	2,809	299	2,646	299	2,622	301
	3,350	5,833	3,239	5,914	3,570	6,407
Non-retail						
Corporate	1,107	2,489	636	2,529	1,135	2,448
Sovereign	_	-	_	_	_	_
Financial Institutions	-	-	_	_	_	_
	1,107	2,489	636	2,529	1,135	2,448
Trading book	-	34	_	19	1	9
Total	4,457	8,356	3,875	8,462	4,705	8,864

<sup>(1)</sup> No eligible financial collateral.

<sup>(2)</sup> 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)						201	6					
(millions of Canadian dollars)		Q4				Q3	}			Q2		
			On balance				On balance				On balance	
			sheet	Gross			sheet	Gross			sheet	Gross
			exposures	unrealized			exposures	unrealized			exposures	unrealized
	Total	Unfunded	at carrying	gains	Total	Unfunded	at carrying	gains	Total	Unfunded	at carrying	gains
	exposures	commitments	value	(losses)	exposures	commitments	value	(losses)	exposures	commitments	value	(losses)
Public	285	-	285	(13)	283	_	283	(25)	288	-	288	(24)
Private	346	40	306	69	341	40	301	62	307	35	272	66
	631	40	591	56	624	40	584	37	595	35	560	42

(unaudited)		201	6					20	15			
(millions of Canadian dollars)		Q1	•			Q4	<b>,</b>			Q3	3	
	Total exposures		, , ,	Gross unrealized gains (losses)	Total		, ,	Gross unrealized gains (losses)	Total	Unfunded commitments	, ,	Gross unrealized gains (losses)
Public	282	-	282	(56)	312	_	312	(20)	309	_	309	(10)
Private	298	35	263	56	281	35	246	51	269	34	235	39
	580	35	545	1	593	35	558	31	578	34	544	29

## **Credit Derivative Positions** (notional amounts)

						20	16					
		Q	4			Q	13			Q	2	
	(	Credit portfolio <sup>(1)</sup>		Trading	C	redit portfolio(1)		Trading	(	redit portfolio <sup>(1)</sup>		Trading
(unaudited)	Protection		Protection		Protection		Protection		Protection		Protection	
(millions of Canadian dollars)	purchased	Protection sold	purchased	Protection sold	purchased	<b>Protection sold</b>	purchased	Protection sold	purchased	Protection sold	purchased	Protection sold
Credit default swaps												
Indices, singles names and other	60	20	1,188	627	59	20	1,728	1,059	88	19	1,411	677
Tranches on indices	-	-	-	_	_	-	-	-	-	_	-	-
Total return swaps	-	-	217	_	_	-	239	-	-	_	177	-
Credit options	ı	-	27	27	-	-	41	15	-	_	38	38

		20	16					20	15			
		Q	1			C	13			Q	2	
		Credit portfolio <sup>(1)</sup>		Trading	C	redit portfolio(1)		Trading	(	redit portfolio <sup>(1)</sup>		Trading
(unaudited)	Protection		Protection		Protection		Protection		Protection		Protection	
(millions of Canadian dollars)	purchased	Protection sold	purchased	Protection sold	purchased	<b>Protection sold</b>	purchased	Protection sold	purchased	Protection sold	purchased	Protection sold
Credit default swaps												
Indices, singles names and other	63	21	1,319	533	59	20	991	364	39	-	901	348
Tranches on indices	-	-	_	-	-	-	-	21	-	-	-	-
Total return swaps	-	-	186	-	-	-	157	-	-	-	183	-
Credit options	-	-	63	63	-	I	26	26	-	_	13	_

<sup>(1)</sup> Protection sold solely for the purpose of reducing protection purchased.

## **Derivatives Financial Intruments According to Basel Definition**

		2	016			20	15	
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
(unaudited) (millions of Canadian dollars)		-		Un	der Basel III			
Foreign Exchange Related Contracts								
Swaps	195,181	185,738	205,355	205,049	187,833	162,669	157,410	150,030
Options - purchased	7,302	8,387	9,564	10,381	9,943	7,946	6,932	5,780
- sold	6,990	7,861	9,439	11,660	10,507	8,441	7,299	6,663
Exchange traded and OTC futures contracts	34,832	62,710	28,677	30,470	24,491	25,699	21,758	22,398
Total notional amount	244,305	264,696	253,035	257,560	232,774	204,755	193,399	184,871
Replacement cost - gross	4,188	3,752	6,054	6,551	4,246	5,553	4,283	7,195
- net <sup>(1)</sup>	2,649	2,366	3,154	3,962	2,715	3,045	2,145	3,037
Future credit risk	1,959	2,033	2,086	2,035	1,869	1,653	1,927	1,455
Credit equivalent <sup>(2)</sup>	4,608	4,399	5,240	5,997	4,584	4,697	4,072	4,492
Risk-weighted equivalent <sup>(3)</sup>	1,242	1,291	1,375	1,810	1,337	1,390	1,174	1,407
Interest Rate Related Contracts								
Swaps	398,214	377,655	378,617	437,908	418,765	444,988	440,470	429,950
Options - purchased	23,527	9,604	13,150	19,424	8,019	42,558	61,582	54,989
- sold	23,601	5,765	7,831	12,293	5,101	39,293	37,712	61,376
Exchange traded and OTC futures contracts	13,316	7,840	6,480	7,506	12,142	12,315	4,819	7,093
Total notional amount	458,658	400,864	406,078	477,131	444,027	539,154	544,583	553,408
Replacement cost - gross	5,930	7,629	5,966	7,190	5,746	6,073	5,538	7,261
- net <sup>(1)</sup>	1,353	1,609	1,663	1,648	1,509	1,491	1,837	1,795
Future credit risk	1,402	1,513	1,548	1,606	1,581	1,753	1,804	1,683
Credit equivalent <sup>(2)</sup>	2,755	3,122	3,211	3,254	3,090	3,244	3,641	3,478
Risk-weighted equivalent <sup>(3)</sup>	774	927	911	875	955	981	948	1,052
Financial Futures		,_,	,			,,-		-,
Total notional amount	116,470	121,080	101,956	108,307	78,345	152,997	131,541	117,475
Equity and Commodity Contracts		·					·	·
Total notional amount	46,873	46,099	41,417	42,108	41,373	43,574	39,527	40,224
Replacement cost - gross	2,482	2,712	2,990	3,416	2,877	3,101	2,557	3,342
- net <sup>(1)</sup>	2,154	2,447	2,640	3,084	2,572	2,803	2,189	2,939
Future credit risk	2,037	1,899	1,638	1,693	1,693	3,967	3,766	3,723
Credit equivalent <sup>(2)</sup>	4,191	4,346	4,278	4,777	4,265	6,770	5,956	6,662
Risk-weighted equivalent <sup>(3)</sup>	324	314	515	537	520	1,465	1,543	1,464
Credit Derivatives	324	714	313	331	320	1,405	1,545	1,404
Total notional amount (trading only) <sup>(5)</sup>	2,086	3,082	2,341	2,164	1,585	1,445	1,221	1,097
Total Return Swap Notional Amount <sup>(4) (5)</sup>	30,477	27,900	27,064	25,101	25,122	23,497	22,149	20,896
Replacement cost <sup>(5)</sup> - gross	104	101	27,064	25,101	92	23,497	78	20,896
- net <sup>(1)</sup>					37		31	
- net Future credit risk	34 982	27 917	42 1,001	40 929	37 1,020	30 837	31 804	40 358
			•		· ·			
Credit equivalent <sup>(2)</sup>	1,016	944	1,043	969	1,057	867	835	398
Risk-weighted equivalent <sup>(3)</sup>	142	122	88	81	135	71	90	72
Total Derivatives								
Total notional amount	898,869	863,721	831,891	912,371	823,226	965,422	932,420	917,971
Replacement cost - gross	12,704	14,194	15,091	17,247	12,961	14,808	12,456	17,863
- net <sup>(1)</sup>	6,190	6,449	7,499	8,734	6,833	7,369	6,202	7,811
Future credit risk	6,380	6,362	6,273	6,263	6,163	8,210	8,301	7,811
Credit equivalent <sup>(2)</sup>	12,570	12,811	13,772	14,997	12,996	15,578	14,504	15,030
Risk-weighted equivalent <sup>(3)</sup>		*		•				· ·
kisk-weighten ednivateur	2,482	2,654	2,889	3,303	2,947	3,907	3,755	3,995

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

<sup>(2)</sup> Includes the impact of master netting agreements but excludes collateral.

<sup>(3)</sup> Risk weighted amounts reported are net of impact of collaterals and master netting agreemnts.

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

<sup>(5)</sup> Trading Credit Derivatives only.

# Over The Counter Derivatives Financial Instruments Settled by Central Counterparties (1)

					2016				
		Q4			Q3			Q2	
			OTC-Traded			OTC-Traded			OTC-Traded
							Ï		
		Settled by	Not settled by		Settled by	Not settled by		Settled by	Not settled by
(unaudited)	Exchange-traded	central	central	Exchange-traded	central	central	Exchange-traded	central	central
(millions of Canadian dollars)	contracts	counterparties	counterparties	contracts	counterparties	counterparties	contracts	counterparties	counterparties
Interest rate contracts	155,838	297,612	121,678	129,581	265,437	126,926	115,717	267,983	124,333
Foreign exchange contracts	821	-	243,484	160	_	264,536	129	-	252,907
Equity, commodity and credit derivative contracts <sup>(2)</sup>	18,658	1,977	58,801	17,778	2,792	56,511	13,263	1,880	55,679

		2016				20	15		
		Q1			Q4			Q3	
			OTC-Traded			OTC-Traded			OTC-Traded
		Settled by	Not settled by		Settled by	Not settled by		Settled by	Not settled by
(unaudited)	Exchange-traded	central	central	Exchange-traded	central	central	Exchange-traded	central	central
(millions of Canadian dollars)	contracts	counterparties	counterparties	contracts	counterparties	counterparties	contracts	counterparties	counterparties
Interest rate contracts	132,266	318,318	134,854	80,417	295,829	146,126	225,609	317,422	149,120
Foreign exchange contracts	179	-	257,381	220	-	232,554	198	-	204,557
Equity, commodity and credit derivative contracts <sup>(2)</sup>	14,122	1,513	53,738	12,936	1,319	53,825	14,848	1,065	52,603

<sup>(1)</sup> Notional amounts.

<sup>(2)</sup> Credit derivative contracts in non-trading book are excluded.

### **Aggregate Amount of Securitization Exposures**

						201	5											20	)15					
		Q4			Q3			Q2			Q1			Q4			Q3			Q2			Q1	
	Bankin	a Book	Trading			Trading																		
(unaudited) (millions of Canadian dollars)		•	book		king Book	book		king Book	book		king Book	book		ing Book	book		king Book	book		king Book	book		king Book	book
	On	Off	On	. On	Off	. On	On .	Off	. On	. On	. Off	. On	On .	. Off	. On	. On	. Off	. On		. Off	. On	. On	Off	On
Bank's own assets	balance sheet																							
Traditional exposures	Jileet	Silect	Silect	Silect	Silect	Silect	Silect	Jileet	Silect	Silect	Jileet	Silect	Silect	Silect	Silect	Jileet	Jileet	Silect	Silect	Silect	Silect	Jileet	Silect	Silect
Insured Mortgage loans																								
Retained <sup>(1)</sup>	5,457	_	_	3,748	_	_	4,341	_	_	3,420	_	_	2,584	_	_	1,989	_	_	1,841	_	_	1,976	_	_
Credit Cards	5,457			3,740			4,541			3,420			2,504			1,707			1,041			1,770		
Retained <sup>(1)</sup>																								
Seller's interest	213	426	_	209	419	_	193	391	_	164	340	_	206	404	_	156	312	_	193	385	_	192	359	_
Purchased <sup>(2)</sup>	89	420	_	89	417	_	89	391	_	89	540	-	89	404	-	80	312		86	,60	_	85	339	
Total - Bank's own assets	5,759	426	-	4.046	419	_	4,623	391	_	3,673	340	_	2,879	404	_	2,225	312		2.120	385	_	2,253	359	
Third party assets	3,739	420	_	4,046	419	-	4,023	391	-	3,073	340	-	2,0/9	404	-	2,225	312	-	2,120	365	_	2,255	223	_
Sponsored																								
Traditional exposures <sup>(3)</sup>																								
Residential Mortgages - Insured	_	1,744	2	_	1,790	1	_	1,440	19	_	1,204	7	_	1,368	14	_	1,360	27	_	1,237	27	_	1,405	21
Residential Mortgages - conventional	_	738	1	_	734	_	_	562	7	_	483	3	_	480	5	_	354	7	_	276	-,	_	244	4
Fleet Lease Receivables	_	258	_	_	261	_	-	259	3	-	263	1	_	242	2	_	242	5	-	242	5	-	99	1
Auto Floorplans	_	-	_	_	_	_	-	-	_	-	_	-	-	-	_	_	_	_	-	-	_	-	-	_
Auto Loans	-	136	-	-	137	-	-	136	2	-	141	1	-	144	1	-	207	4	-	233	5	-	264	4
Purchased																								
Traditional exposures																								
Insured Mortgage loans - MBS	4,377	-	1,732	4,536	-	1,207	4,715	-	1,388	5,240	-	1,390	4,878	-	1,356	4,500	-	1,153	4,446	-	1,038	3,971	-	834
Credit Cards - ABS	89	-	26	89	-	36	89	-	49	89	-	68	89	-	49	86	-	107	86	-	81	-	-	78
Home Equity - ABS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Commercial mortgage back securities (CMBS)	13	-	-	13	-	-	13	-	-	13	-	-	13	-	-	14	-	-	61	-	3	61	-	3
Collateralized debt obligation (CDO)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Collateralized mortgage obligation (CMO)	477	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_	-	-	-	-	-	-
Other	4//	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_	-	-	-	-	-	_
Synthetic exposures																								
CDX tranches																	_		_					1
CDA tranciles		_	_	_	_	_	_	-	_	_	-	-	_	-	-	_	-		_	-	_	_	-	1
Resecuritized exposures																								
Master Asset Vehicules <sup>(4)</sup>	542	_	_	543	_	_	543	_	_	545	_	_	545	_	_	531	_	_	1.028	821	_	1,056	825	_
Commercial paper not included in the	542			545			545			545			545			,,,,			1,020	021		1,000	023	
Pan-Canadian restructuring plan	74	_	_	92	-	_	91	-	_	102	_	_	102	-	_	105	-	_	103	-	_	101	_	_
Collateralized mortgage obligation (CMO)	-	-	_		-	_	-	-	-	_	-	-	-	-	_	-	-	_	_	-	_	-	-	_
Total - Third party assets	5,572	2,876	1,761	5,273	2,922	1,244	5,451	2,397	1,468	5,989	2,091	1,470	5,627	2,234	1,427	5,236	2,163	1,303	5,724	2,809	1,165	5,189	2,837	946
Total - Bank	11,331	3,302	1,761	9,319	3,341	1,244	10,074	2,788	1,468	9,662	2,431	1,470	8,506	2,638	1,427	7,461	2,475	1,303	7,844	3,194	1,165	7,442	3,196	946

<sup>(1)</sup> 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.

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

<sup>(3)</sup> 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.

<sup>(4)</sup> 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**

									20:	16								
			Q4	4					Q:	3					Q	2		
				anking Book		rading book				anking Book		rading book				anking Book		Frading book
(unaudited) (millions of Canadian dollars)	On ba	lance sheet	Off ba	alance sheet	On ba	alance sheet	On ba	lance sheet	Off b	alance sheet	On b	alance sheet	On b	alance sheet	Off ba	alance sheet	On b	alance sheet
	RBA/Inferred		RBA/Inferred		RBA/Inferred		RBA/Inferred		RBA/Inferred		RBA/Inferred		RBA/Inferred		RBA/Inferred		RBA/Inferred	
	Ratings	Risk-	Ratings	Risk-	Ratings	Risk-	Ratings	Risk-		Risk-		Risk-	Ratings	Risk-		Risk-		Risk-
<b>D</b> (1)	Exposure	Weighted	Exposure	Weighted	Exposure	Weighted	Exposure	Weighted	Exposure	Weighted	Exposure	Weighted	Exposure	Weighted	Exposure	Weighted	Exposure	Weighted
Bank's own assets <sup>(1)</sup>	Amount	Assets	Amount	Assets	Amount	Assets	Amount	Assets	Amount	Assets	Amount	Assets	Amount	Assets	Amount	Assets	Amount	Assets
Credit Cards																	!	I
Seller's interest exposure <sup>(2)</sup>	213	136	426	58	-	-	209	131	419	58	-	-	193	123	391	56	- 1	-
Purchased	89	41	-	-	-	-	89	41	_	_	-	_	89	41	-	_	_	
Total - Bank's own assets	302	177	426	58	-	-	298	172	419	58	-	-	282	164	391	56	-	_
Third party assets																		l.
Securitized																		l.
7% - 30%	536	11	2,876	235	26	21	59	11	2,922	171	36	25	59	11	2,397	165	49	34
35% - 100%	43	32	-	-	-	-	43	32	-	-	-	-	43	32	-	-	_ !	_
150% - 850%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_	_ !	-
1250 %																	!	I
Home Equity - ABS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_	_ !	-
Collateralized mortgage obligation (CMO)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_	_ !	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_	_ !	-
Resecuritized																		I
7% - 30%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_	-
35% - 100%	500	210	-	-	-	-	515	216	-	-	-	-	516	217	-	_	_ !	-
150% - 850%	113	301	-	-	-	-	116	309	-	-	-	-	114	307	-	-	_ !	-
1250 %																		l.
Master Asset Vehicules	3	42	-	-	-	-	4	46	-	-	-	-	4	49	-	-	_ !	-
Commercial paper not included in the																		ı
Pan-Canadian restructuring plan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_ !	-
Collateralized mortgage obligation (CMO)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total - Third party assets	1,195	596	2,876	235	26	21	737	614	2,922	171	36	25	736	616	2,397	165	49	34
Total	1,497	773	3,302	293	26	21	1,035	786	3,341	229	36	25	1,018	780	2,788	221	49	34 34

			20:	16								20	15					
			Q	1					Q.	4					Q	3		
			В	anking Book	T	rading book			В	anking Book	1	rading book			В	anking Book	1	rading book
(unaudited) (millions of Canadian dollars)	On b	alance sheet	Off b	alance sheet	On ba	alance sheet	On b	alance sheet	Off b	alance sheet	On b	alance sheet	On b	alance sheet	Off b	alance sheet	On b	alance sheet
Bank's own assets <sup>(1)</sup>	RBA/Inferred Ratings Exposure Amount	Risk- Weighted Assets	Inferred Ratings Exposure Amount	Risk- Weighted Assets	RBA/Inferred Ratings Exposure Amount	Risk- Weighted Assets	RBA/Inferred Ratings Exposure Amount	Risk- Weighted Assets	Inferred Ratings Exposure Amount	Risk- Weighted Assets	RBA/Inferred Ratings Exposure Amount	Risk- Weighted Assets	RBA/Inferred Ratings Exposure Amount	Risk- Weighted Assets	Inferred Ratings Exposure Amount	Risk- Weighted Assets	RBA/Inferred Ratings Exposure Amount	Risk Weighted Assets
Credit Cards	Jungani	7.0.7.0.0	7	,,,,,,,	7		7	7,000,0	71111041110	,,,,,,	7	7,00010	7	1,000	7	7,000	7.11.10.1111	
Seller's interest exposure <sup>(2)</sup>	164	109	340	49	-	-	206	133	404	60	-	-	156	100	312	46	-	-
Purchased	89	41	-	-	-	-	89	41	-	-	-	-	86	38	-	-	-	
Total - Bank's own assets	253	150	340	49	_	-	295	174	404	60	_	-	242	138	312	46	-	
Third party assets Securitized																		1
7% - 30%	60	11	2,091	156	68	47	60	11	2,234	158	49	29	61	11	2,163	151	107	66
35% - 100%	43	32	_	-	-	-	43	32	-	-	-	-	39	29	-	-	-	-
150% - 850% 1250 %	-	-	-	-	-	-		-	-		-	-		-	-	-	-	<b>-</b>
Home Equity - ABS Collateralized mortgage obligation (CMO)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	_	-	-	-	-	-	_	-	-	-	_	-	_	-	-	-	_	
Resecuritized 7% - 30%	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-
35% - 100%	529	238	_	_	-	_	529	238	_	-	_	_	501	226	_	_	_	-
150% - 850% 1250 %	113	303	-	-	-	-	112	300	-	-	-	-	104	274	-	-	-	-
Master Asset Vehicules Commercial paper not included in the	4	55	-	-	-	-	5	59	-	-	-	-	5	64	-	-	-	- 
Pan-Canadian restructuring plan Collateralized mortgage obligation (CMO)	_	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-   -
and the state of t																		i
Total - Third party assets	749	639	2,091	156	68	47	749	640	2,234	158	49	29	710	604	2,163	151	107	66
Total	1,002	789	2,431	205	68	47	1,044	814	2,638	218	49	29	952	742	2,475	197	107	66

<sup>(1)</sup> 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.

<sup>(2)</sup> Seller's interest exposure are treated under AIRB Approach.

### **Asset Securitization - Managed Loans**

								201	6						
			Q4					Q3					Q2		
(unaudited) (millions of Canadian dollars)	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		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	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
Banking Book															
Insured mortgage loans	18,709	_	-	3,134	-	17,123	-	_	1,134	_	17,903	_	-	2,623	_
Credit card receivables	1,389	8	11		_	1,389	8	12	_	_	1,389	9	14	_	_
Total	20,098	8	11	3,134	_	18,512	8	12	1,134	_	19,292	9	14	2,623	_
Trading Book Insured mortgage loans	5,631	_	_	1,389	323	4,324	_	_	513	1,045	4,051	_	_	360	570

			201	6						20	15				
			Q1					Q4					Q3		
(unaudited) (millions of Canadian dollars)	Total gross loans <sup>(1)</sup>	Gross impaired loans and other past due loans <sup>(2)</sup>	write-	Securitization activities for the quarter ended	Exposure amount intended to be securitized	Total gross	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	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
Banking Book															
Insured mortgage loans	16,535	-	-	1,650	-	16,151	-	-	2,022	_	15,467	-	-	1,733	-
Credit card receivables	1,389	8	13	-	_	1,389	8	13	461	_	1,355	8	13	530	_
Total	17,924	8	13	1,650	-	17,540	8	13	2,483	-	16,822	8	13	2,263	_
Trading Book Insured mortgage loans	3,814	_		359	407	3,562	_	1	845	684	3,038	_	1	279	810

<sup>(1)</sup> Notional amount.

<sup>(2)</sup> 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

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