## INTRODUCTION



This document is not audited and should be read in conjunction with our Q3 2018 Quarterly Report to Shareholders and 2017 Annual Report.

Effective November 1, 2012, Canadian banks are subject to the revised capital adequacy requirements as published by the Basel Committee on Banking Supervision (BCBS) and commonly referred to as Basel III. Basel III builds on the "International Convergence of Capital Measurement and Capital Standards: A Revised Framework" (Basel II). Refer to page 2 "Basel III Implementation" for further details.

The Basel III Framework is comprised of three Pillars:

- Pillar 1 the actual methodologies that must be applied to calculate the minimum capital requirements.
- Pillar 2 the requirement that banks have internal processes to assess their capital adequacy in relation to their strategies, risk appetite and actual risk profile. Regulators are expected to review these internal capital adequacy assessments.
- Pillar 3 reflects the market disclosures required by banks to assist users of the information to better understand the risk profile.

This Appendix reflects the Pillar 3 market disclosures based on information gathered as part of the Pillar 1 process, and should assist users in understanding the changes to the risk-weighted assets and capital requirements.

Basel III classifies risk into three broad categories: credit risk, market risk and operational risk. Under Pillar 1 of the Basel III Framework, minimum capital for these three risks is calculated using one of the following approaches:

- Credit risk capital Internal Ratings Based Approach (Advanced or Foundation) or Standardized Approach.
- Operational risk capital Advanced Measurement Approach (AMA), Standardized Approach or Basic Indicator Approach.
- Market risk capital Internal models or Standardized Approach.

#### Credit Risk

The credit risk component consists of on- and off- balance sheet claims. The Basel III rules are not applied to traditional balance sheet categories but to categories of on- and off- balance sheet exposures which represent general classes of assets/exposures (Corporate, Sovereign, Bank, Retail and Equity) based on their different underlying risk characteristics.

Generally, while calculating capital requirements, exposure types such as Corporate, Sovereign, Bank, Retail and Equity are analyzed by the following credit risk exposure sub-types: Drawn, Undrawn, Repo-style Transactions, Over-the-counter (OTC) Derivatives, Exchange Traded Derivatives and Other Off-balance Sheet claims.

The Bank uses the Advanced Internal Ratings Based (AIRB) approach for credit risk in its material Canadian, US and European portfolios and for a significant portion of international corporate and commercial portfolios. The Bank uses internal estimates, based on historical experience, for probability of default (PD), loss given default (LGD) and exposure at default (EAD).

- Under the AIRB approach, credit risk risk-weighted assets (RWA) are calculated by multiplying the
  capital requirement (K) by EAD times 12.5, where K is a function of the PD, LGD, maturity and
  prescribed correlation factors. This results in the capital calculations being more sensitive to underlying
  risks.
- Risk weights for exposures which fall under the securitization framework are computed under the Internal Assessments Approach (IAA) or the Ratings-Based Approach (RBA). RBA risk weights depend on the external rating grades given by two of the external credit assessment institutions (ECAI): S&P, Moody's and DBRS.
- A multiplier of 1.25 is applied to the correlation parameter of all exposures to all unregulated Financial Institutions, and regulated Financial Institutions with assets of at least US\$100 billion.
- Exchange-traded derivatives which previously were excluded from the capital calculation under Basel II
  are risk-weighted under Basel III.
- An overall scaling factor of 6% is added to the credit risk RWA for all AIRB portfolios. For the remaining
  portfolios, the Standardized Approach is used to compute credit risk.
- The Standardized Approach applies regulator prescribed risk weight factors to credit exposures based on the external credit assessments (public ratings), where available, and also considers other additional factors (e.g. provision levels for defaulted exposures, loan-to-value for retail, eligible collateral, etc.).

#### Operational Risk

OSFI has approved Scotiabank's application to use the Advanced Measurement Approach (AMA) for Operational Risk, subject to a capital floor based on the Standardized Approach, in the first quarter of 2017. The Bank also utilizes the Standardized Approach for operational risk for units not covered under AMA. AMA utilizes risk drivers for capital movements (such as internal loss experience, business environment and internal control factors, external loss experience, and scenarios); while the Standardized Approach is based on a fixed percentage ranging from 12% to 18% of the average of the previous three years' gross income.

#### Market Risk

The Bank uses both internal models and standardized approaches to calculate market risk capital. Commencing Q1 2012, the Bank implemented additional market risk measures in accordance with Basel's Revisions of the Basel II market risk framework (July 2009). Additional measures include stressed Value-at-Risk, incremental risk charge and comprehensive risk measure.

International Financial Reporting Standards (IFRS)

Effective Q1 2012, all amounts reflect the adoption of IFRS. Effective Q1 2014, all amounts reflect the adoption of new accounting standards, IFRS10 (Consolidated Financial Statements) and IAS19R (Employee Benefits). Effective Q1 2018, the Bank adopted IFRS 9 (Financial Instruments) and did not restate comparative periods. The full transitional impact on regulatory capital from IFRS 9 was recognized upon adoption. Prior period results are based on International Accounting Standard (IAS) 39 and therefore these amounts and related ratios are not comparable.

This "Supplementary Regulatory Capital Disclosure" has been updated to reflect OSFI's Advisory, "Required Public Disclosure Requirements related to Basel III Pillar 3" (issued July 2, 2013), effective Q3 2013 for all D-SIBs. The main features template that sets out a summary of information on the terms and conditions of the main features of all capital instruments is posted on the Bank's website as follows: http://www.scotiabank.com/ca/en/0..3066.00.htm

## **BASEL III IMPLEMENTATION**



Canadian banks are subject to the revised capital adequacy requirements as published by the Basel Committee on Banking Supervision (BCBS) - commonly referred to as Basel III - effective November 1, 2012. Basel III builds on the "International Convergence of Capital Measurement and Capital Standards: A Revised Framework" (Basel II). The Office of the Superintendent of Financial Institutions (OSFI) has issued guidelines, reporting requirements and disclosure guidance which are consistent with the Basel III reforms (except for implementation dates described below).

As compared to previous standards, Basel III places a greater emphasis on common equity by introducing a new category of capital, Common Equity Tier 1 (CET1), which consists primarily of common shareholders equity net of regulatory adjustments. These regulatory adjustments include goodwill, intangible assets, deferred tax assets, pension assets and investments in financial institutions over certain thresholds. Overall, the Basel III rules increase the level of regulatory deductions relative to Basel II. Basel III also increases the level of risk-weighted assets for significant investments and deferred tax amounts due to temporary timing differences under defined thresholds, exposures to large or unregulated financial institutions meeting specific criteria, exposures to centralized counterparties and exposures that give rise to wrong way risk.

To enable banks to meet the new standards, Basel III contains transitional arrangements commencing January 1, 2013, through January 1, 2019. Transitional requirements result in a phase-in of new deductions to common equity over 5 years. Under the transitional rules, all CET1 deductions are multiplied by a factor during the transitional period, beginning with 0% in 2013, 20% in 2014, 40% in 2015, 60% in 2016, 80% in 2017 and 100% in 2018. The portion of the CET1 regulatory adjustments not deducted during the transitional period will continue to be subject to Basel II treatment. In addition, non-qualifying capital instruments will be phased-out over 10 years and the capital conservation buffer will be phased in over 4 years. As of January 2019, the banks will be required to meet new minimum requirements related to risk-weighted assets of: Common Equity Tier 1 ratio of 4.5% plus a capital conservation buffer of 2.5%, collectively 7%. Including the capital conservation buffer, the minimum Tier 1 ratio will be 8.5%, and the Total capital ratio will be 10.5%.

OSFI required Canadian deposit-taking institutions to fully implement the 2019 Basel III reforms in 2013, without the transitional phase-in provisions for capital deductions, and achieve a minimum 7% common equity target, by the first quarter of 2013 along with a minimum Tier 1 ratio of 7% and Total capital ratio of 10%. Since the first quarter of 2014, the minimum Tier 1 ratio rose to 8.5% and the Total capital ratio rose to 10.5%.

The BCBS issued the rules on the assessment methodology for global systemically important banks (G-SIBs) and their additional loss absorbency requirements. In their view, additional policy measures for G-SIBs are required due to negative externalities (i.e., adverse side effects) created by systemically important banks which are not fully addressed by current regulatory policies. The assessment methodology for G-SIBs is based on an indicator-based approach and comprises five broad categories: size, interconnectedness, lack of readily available substitutes, global (cross-jurisdictional) activity and complexity. Additional loss absorbency requirements may range from 1% to 3.5% Common Equity Tier 1 depending upon a bank's systemic importance and will be introduced in parallel with the Basel III capital conservation and countercyclical buffers from 2016 through to 2019. Scotiabank is not designated as a G-SIB.

Since similar externalities can apply at a domestic level, the BCBS extended the G-SIBs framework to domestic systemically important banks (D-SIBs) focusing on the impact that a distress or failure would have on a domestic economy. Given that the D-SIB framework complements the G-SIB framework, the Committee considers that it would be appropriate if banks identified as D-SIBs by their national authorities are required by those authorities to comply with the principles in line with phase-in arrangements for the G-SIB framework, i.e., January 2016. In a March 2013 advisory letter, OSFI designated the 6 largest banks in Canada as domestic systemically important banks (D-SIBs), increasing their minimum capital ratio requirements by 1% for the identified D-SIBs. This 1% surcharge is applicable to all minimum capital ratio requirements for CET1, Tier 1 and Total Capital.

As of January 2016, the Scotiabank and other Canadian D-SIB banks are also required to meet new D-SIB minimum requirements; a minimum Common Equity Tier 1 ratio of 8.0%, Tier 1 ratio of 9.5% and a Total capital ratio of 11.5% as a Pillar 1 requirement. In June 2018, in order to provide increased transparency to the market, OSFI clarified its additional requirement for its Domestic Stability Buffer, already held by D-SIBs as a Pillar 2 buffer requirement. The Domestic Stability Buffer will range between 0 and 2.5% of a bank's total RWA. The buffer is presently set at 1.5%. OSFI will review the buffer on at least a semi-annual basis.

In December 2013, OSFI announced its decision to implement the phase-in (over 5 years) of the regulatory capital for Credit Valuation Adjustment (CVA) on Bilateral OTC Derivatives effective Q1 2014. In accordance with OSFI's requirements, commencing in Q1, 2018, the CVA risk-weighted assets have been calculated using scalars of 0.80, 0.83 and 0.86, to compute the CET1 capital ratio, Tier 1 capital ratio and Total capital ratio, respectively (0.72, 0.77 and 0.81 in Fiscal 2017).

OSFI required Canadian deposit-taking institutions to implement the BCBS' countercyclical buffer requirements, starting Q1, 2017. The countercyclical buffer is only applicable to private sector credit exposures in jurisdictions with published buffer requirements. At present only four jurisdictions apply a non-zero countercyclical buffer and the Bank's exposures within these four jurisdictions are not material.

Risk-weighted assets are computed on an all-in Basel III basis unless otherwise indicated. All-in is defined as capital calculated to include all of the regulatory adjustments that will be required by 2019 but retaining the phase-out rules for non-qualifying capital instruments.

As at January 31, 2013, all of the Bank's preferred shares, capital instruments and subordinated debentures did not meet these additional criteria and are subject to phase-out commencing January 2013. The Bank reserves the right to redeem, call or repurchase any capital instruments within the terms of each offering at any time in the future.

Commencing in 2015, the Bank issued subordinated debentures and preferred shares which contain non-viability contingent capital (NVCC) provisions necessary for the preferred shares and debentures to qualify as Tier 1 or Tier 2 regulatory capital. Under the NVCC provisions, the preferred shares and debentures are convertible into a variable number of common shares upon: (i) the public announcement by OSFI that the Bank has ceased, or is about to cease, to be viable; or (ii) by a federal or provincial government of Canada that the Bank accepted or agreed to accept a capital injection.

In addition to risk-based capital requirements, the Basel III reforms introduced a simpler, non risk-based Leverage ratio requirement to act as a supplementary measure to its risk-based capital requirements. The Leverage ratio is defined as a ratio of Basel III Tier 1 capital to a leverage exposure measure which includes on-balance sheet assets and off-balance sheet commitments, derivatives and securities financing transactions, as defined within the requirements. As a member of the BCBS, OSFI has adopted the Basel III Leverage requirements as part of its domestic requirements for banks, bank holding companies, federally regulated trust and loan companies in Canada.

In October 2014, OSFI released its Leverage Requirements Guideline which outlines the application of the Basel III Leverage ratio in Canada and the replacement of the former Assets-to-Capital Multiple (ACM), effective Q1 2015. Institutions are expected to maintain a material operating buffer above the 3% minimum. The Bank meets OSFI's authorized leverage ratio. Commencing Q1 2015, disclosure in accordance with OSFI's September 2014 Public Disclosure Requirements related to Basel III Leverage ratio has been made in the Supplementary Regulatory Capital Disclosure on pages 27-29.

Since the introduction of Basel II in 2008, OSFI has prescribed a minimum capital floor requirement for institutions that use the AIRB approach for credit risk. Up to and including Q1 2018, the capital floor add-on was determined by comparing a Basel I capital requirement calculated by reference to Basel I against the Basel III capital requirement, as prescribed by OSFI. A shortfall in the Basel III capital requirement compared with 90% of Basel I capital floor requirement was added to RWAs.

Effective Q2 2018, OSFI replaced the Basel I regulatory capital floor with a capital floor based on 70% of the Basel II standardized approach for credit risk RWAs (increasing to 72.5% in Q3 2018 and to 75% in Q4 2018). Revised capital floor requirements also include risk-weighted assets for market risk and CVA.



				Basel III				
		IFRS 9 (1)			IAS 39 <sup>(1)</sup>			
(\$MM)	Q3 2018	Q2 2018	Q1 2018	1 2018 Q4 2		Q3 :	2017	
	All-in Approach <sup>(2)</sup>	All-in Approach <sup>(2)</sup>	All-in Approach <sup>(2)</sup>	Transitional Approach	All-in Approach <sup>(2)</sup>	Transitional Approach	All-in Approach <sup>(2)</sup>	
Common Equity Tier 1 capital	46,777	45,025	42,990	46,051	43,352	44,070	41,369	
Tier 1 capital	52,540	50,708	48,648	50,623	49,473	47,076	45,913	
Total capital	59,837	57,716	55,637	57,222	56,113	55,051	53,929	
Risk-weighted Assets  CET1 Capital Risk-weighted Assets  Tier 1 Capital Risk-weighted Assets  Total Capital Risk-weighted Assets	411,426 411,604 411,783	375,901 376,042 376,183	382,248 382,248 382,248	387,292 387,292 387,292	376,379 376,379 376,379	376,358 376,358 376,358	365,411 365,411 365,411	
Capital Ratios (%)  Common Equity Tier 1 (as a percentage of risk-weighted assets)  Tier 1 (as a percentage of risk-weighted assets)  Total capital (as a percentage of risk-weighted assets)	11.4 12.8 14.5	12.0 13.5 15.3	11.2 12.7 14.6	11.9 13.1 14.8	11.5 13.1 14.9	11.7 12.5 14.6	11.3 12.6 14.8	
Leverage: Leverage Exposures Leverage Ratio (%)	1,071,975 4.9	1,060,648 4.8	1,048,763 4.6	1,053,928 4.8	1,052,891 4.7	1,033,500 4.6	1,032,443 4.4	
OSFI Target: All-in Basis (%) Common Equity Tier 1 minimum ratio Tier 1 capital all-in minimum ratio Total capital all-in minimum ratio Leverage all-in minimum ratio	8.0 9.5 11.5 3.0	8.0 9.5 11.5 3.0	8.0 9.5 11.5 3.0		8.0 9.5 11.5 3.0		8.0 9.5 11.5 3.0	
Capital instruments subject to phase-out arrangements								
Current cap on Additional Tier 1 (AT1) instruments subject to phase-out arrangements (%)	40	40	40	50	50	50	50	
Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	110	110	455	-	-	-	-	
Current cap on Tier 2 (T2) instruments subject to phase-out arrangements (%)	40	40	40	50	50	50	50	
Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	-	-	-	-	-	-	-	

<sup>(1)</sup> Effective Q1 2018, the Bank adopted IFRS 9 (Financial Instruments). The full transitional impact on regulatory capital from IFRS 9 was recognized upon adoption. Prior period results and ratios are based on International Accounting Standard (IAS) 39.

<sup>(2) &#</sup>x27;All-in' approach is defined as capital calculated to include all of the regulatory adjustments that will be required by 2019 but retaining the phase-out rules for non-qualifying capital instruments. The Transitional Approach is no longer applicable effective Q1, 2018.

<sup>(3)</sup> As per OSFI guideline, effective Q1 2014, Credit Valuation Adjustment (CVA) RWA on derivatives was phased-in using Scalars. Commencing in Q1, 2018, the CVA RWA have been calculated using scalars of 0.80, 0.83 and 0.86, to compute the CET1 capital ratio, Tier 1 capital ratio and Total capital ratio, respectively (0.72, 0.77 and 0.81 in fiscal 2017).

<sup>(4)</sup> As at July 31, 2018 and April 30, 2018, the Bank does not have a regulatory capital floor add-on for CET1, Tier 1 and Total capital risk-weighted assets (as at January 31, 2018: \$16.4 billion, \$16.3 billion and \$16.2 billion respectively; as at October 31, 2017: \$12.8 billion, \$12.6 billion, \$12.6 billion, \$12.4 bil

# REGULATORY CAPITAL - DEFINITION OF CAPITAL COMPONENTS (1)



(\$1	MM)	Cross- Reference <sup>(2)</sup>	All-in Q3 2018	All-in Q2 2018
	Common Equity Tier 1 Capital: Instruments and Re	serves		
1	Directly issued qualifying common share capital plus related stock surplus	u+y	18,454	15,819
2	Retained Earnings	٧	40,652	39,766
3	Accumulated Other Comprehensive Income	W	1,646	1,676
5	Common share capital issued by subsidiaries and held by third parties (amount allowed in group CET1)	bb	1,329	656
6	Common Equity Tier 1 capital before regulatory adjustments		62,081	57,917
	Common Equity Tier 1 Capital: Regulatory Adjustr	nents		
8	Goodwill (net of related tax liability)	g	(9,403)	(7,821)
9	Intangibles other than mortgage-servicing rights (net of related tax liability)	h-q+i-r	(4,641)	(3,856)
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability)	k	(343)	(341)
11	Cash flow hedge reserve	Х	22	(94)
12	Shortfall of allowances to expected losses	ee	-	-
14	Gains and losses due to changes in own credit risk on fair value liabilities	р	(145)	(112)
15	Defined-benefit pension fund net assets (net of related tax liability)	l-s	(189)	(198)
16	Investments in own shares (if not already netted off paid-in capital on reported balance sheet)	а	(9)	(6)
19	Significant investments in the common stock of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions (amount above 10% threshold)	е	(416)	(410)
22	Amount exceeding the 15% threshold		(177)	(50)
23	of which: significant investments in the common stock of financials	f	(117)	(34)
25	of which: deferred tax assets arising from temporary differences	j	(60)	(16)
26	Other deductions from CET1 as determined by OSFI	0	(3)	(4)
28	Total regulatory adjustments to Common Equity Tier 1		(15,304)	(12,892)
29	Common Equity Tier 1 Capital (CET1)		46,777	45,025
30	Additional Tier 1 Capital: Instruments	_	2,911	2,911
	Directly issued qualifying Additional Tier 1 instruments plus related stock surplus	Z		
31	of which: classified as equity under applicable accounting standards	(3)	2,911	2,911
33	Directly issued capital instruments subject to phase-out from Additional Tier 1	aa <sup>(3)</sup>	2,613	2,613
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)	cc	239	165
36			5,763	5,689
	Additional Tier 1 Capital: Regulatory Adjustmer	nts		
39	Non-significant investments in the capital of banking, financial and insurance entities, net of eligible short positions (amount above 10% threshold)		-	-
40	Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation (net of eligible short positions)	b	-	-
41	Other deductions from Tier 1 capital as determined by OSFI		-	(6)
43	Total regulatory adjustments to Additional Tier 1 capital		-	(6)
44	Additional Tier 1 Capital (AT1)		5,763	5,683
	Tier 1 Capital (T1=CET1 + AT1)		52,540	50,708
	Tier 2 Capital: Instruments and Provisions		. ,	,
46	Directly issued qualifying Tier 2 instruments	m	3,557	3,536
47	Directly issued capital instruments subject to phase-out from Tier 2		2,130	2,131
48	Tier 2 instruments issued by subsidiaries and held by third parties (amount allowed in group Tier 2)	dd	95	105
			4 545	4 220
50	Eligible Collective Allowance and Excess of allowance over expected loss	c+d	1,515	1,236

		Cross- Reference <sup>(2)</sup>	All-in Q3 2018	All-in Q2 2018
	Tier 2 Capital: Regulatory Adjustments			
57	Total regulatory adjustments to Tier 2 capital			
	Tier 2 Capital (T2)		7.297	7,008
	Total Capital (TC = T1 + T2)		59.837	57,716
60	Total Risk-weighted Assets		55,551	51,110
60a	Common Equity Tier 1 (CET1) Capital RWA		411,426	375,901
60b	Tier 1 Capital RWA		411,604	376,042
60c	Total Capital RWA		411,783	376,183
	Capital Ratios and Buffers			
61	Common Equity Tier 1 (as a percentage of risk-weighted assets)		11.4	12.0
62	Tier 1 (as a percentage of risk-weighted assets)		12.8	13.5
63	Total capital (as a percentage of risk-weighted assets)		14.5	15.3
	Institution specific buffer requirement (minimum CET1 requirement plus capital conservation			
64	and countercyclical buffer requirements, expressed as a percentage of risk-weighted assets)		8.0%	8.0%
65	of which: capital conservation buffer requirement		2.5%	2.5%
66	of which: bank specific countercyclical buffer requirement		0.0%	0.0%
67	of which: G-SIB buffer requirement		0.0%	0.0%
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk weighted assets)		11.4	12.0
	OSFI all-in target (minimum + capital conservation buffer + DSIB surc	harge (if applica	ble))	
69	Common Equity Tier 1 All-in target ratio		8.0%	8.0%
70	Tier 1 capital all-in target ratio		9.5%	9.5%
71	Total capital all-in target ratio		11.5%	11.5%
	Amounts below the thresholds for the deduction (before risk	k-weighting)		
72	Non-significant investments in the capital of other financial institutions		1,080	915
73	Significant investments in the common stock of financial institutions		4,620	4,515
75	Deferred tax assets arising from temporary differences (net of related tax liability)		2,396	2,239
	Applicable caps on the inclusion of allowances in T	ier 2		
76	Allowances eligible for inclusion in Tier 2 in respect to exposures subject to standardized approach (prior to application of cap)		1,411	1,157
77	Cap on inclusion of allowances in Tier 2 under standardized approach		1,709	1,449
78	Allowances eligible for inclusion in Tier 2 in respect to exposures subject to internal ratings- based approach (prior to application of cap)		105	79
79	Cap for inclusion of allowances in Tier 2 under internal ratings-based approach		1,294	1,262
	Capital instruments subject to phase-out arrangements (only applicable between	en Jan 1 2018 ar	nd Jan 1 2022)	
80	Current cap on CET1 instruments subject to phase-out arrangements		40%	40%
81	Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)		-	-
82	Current cap on AT1 instruments subject to phase-out arrangements		40%	40%
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)		110	110
84	Current cap on T2 instruments subject to phase-out arrangements		40%	40%
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)		-	-

<sup>(1)</sup> Effective Q1 2018, the Bank adopted IFRS 9 (Financial Instruments). The full transtional impact on regulatory capital from IFRS 9 was recognized upon adoption. Prior period results were not restated and are based on International Accounting Standard (IAS) 39.

<sup>(2)</sup> Cross-referenced to the Consolidated Balance Sheet: Source of Definition of Capital Components on page 5 (refer to column: Under Regulatory Scope of Consolidation).

<sup>(3)</sup> Line 33 also includes \$1,400 of capital instruments issued by trusts not consolidated under accounting standard IFRS 10, effective Q1 2014.



	Cross Reference to Page 4 Definition of Capital Components	Consolidated Statement of Financial Position (1)	Under regulatory scope of consolidation (2)
(\$MM)	Components	Q3 2018	Q3 2018
Assets			
Cash and deposits with financial institutions Precious metals		51,891 3,759	51,359 3,759
Trading Assets Securities		77,611	77,606
- Investment in own shares - Other trading securities	а		9 77,597
Loans		14,930	14,930
Other		340 92,881	340 92,876
		32,001	32,070
Financial instruments designated at fair value through profit or loss		15	15
Securities purchased under resale agreements and securities borrowed		84,599	84,591
Derivative financial instruments		34,991	34,991
Investment securities		74,216	73,205
Significant investments in Additional Tier 1 capital of other financial institutions reflected in regulatory capital	b		
-Other securities <sup>(3)</sup>			73,205
Loans			
Residential mortgages Personal loans		253,593 95,318	253,406 95,304
Credit cards (3)		16,629	15,825
Business and government (3)		188,380	188,151
Business and government		553,920	552,686
Allowance for credit losses		5,323	5,323
- General Allowance reflected in Tier 2 capital	С		1,410
Shortfall of allowances to expected loss     Excess of allowances to expected loss	ee d		105
- Allowances not reflected in regulatory capital	G .		3,808
Other			
Customers' liability under acceptances, net of allowance		18,947	18,947
Property and equipment Investments in associates		2,597 4,703	2,593 5,232
- Significant Investments in other financial institutions including		4,703	5,232
deconsolidated subsidiaries exceeding 10% regulatory thresholds	е		416
- Significant Investments in other financial institutions including	,		
deconsolidated subsidiaries exceeding 15% regulatory thresholds - Significant Investments in other financial institutions including	Ť		117
deconsolidated subsidiaries within regulatory thresholds			4,699
Goodwill and other intangible assets		14,890	15,384
- Goodwill	g		8,909
- Imputed goodwill for significant investments - Intangibles (excl. computer software)	g h		494 3,762
- Computer software intangibles	i		2,219
Deferred tax assets		1,957	1,957
<ul> <li>Deferred tax assets arising from temporary differences exceeding the regulatory threshold</li> </ul>			60
regulatory threshold - Deferred tax assets that rely on future profitability	J k		343
Deferred tax assets not deducted from regulatory capital			1,554
Other assets		12,660	12,503
- Defined pension fund assets	I		287
- Other assets		55,754	12,216 56,616

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	Cross Reference to Page 4 Definition of Capital Components	Consolidated Statement of Financial Position <sup>(1)</sup>	Under regulatory scope of consolidation
(\$MM)	Components	Q3 2018	Q3 2018
Liabilities			
Deposits Personal		210,600	210,600
Business and government		401,643	401,643
Financial institutions		41,939	41,939
		654,182	654,182
Financial instruments designated at fair value through profit or loss		7,652	7,652
Other			
Acceptances		18,955	18,955
Obligations related to securities sold short		27,968	27,968
Derivative financial instruments		34,778	34,778
Obligations related to securities sold under repurchase agreements and securities lent		81,706	81,706
Subordinated debentures - Regulatory capital amortization of maturing debentures		5,687	5,687
- Subordinated debentures used for regulatory capital			
- of which: are included in Tier 2 capital	m		3,557
- of which: are subject to phase-out included in Tier 2 capital (40%)	m		2,130
- of which: are subject to phase-out not included in Tier 2 capital			
Other liabilities		48,441	46,513
- Liquidity reserves	0		3
- Gains/losses due to changes in own credit risk including DVA on			
derivatives	р		145
- Deferred tax liabilities	_		753
- Intangible assets (excl. computer software and mortgage servicing rights)	q		1,044
- Intangible assets - computer software	r		296
- Defined benefit pension fund assets - Other deferred tax liabilities	s		98 (685)
- Other liabilities			45,612
		217,535	215,607
Total liabilities		879,369	877,441
Equity			
Common equity			
- Common shares	u	18,292	18,292
- Retained earnings	V	40,652	40,652
- Accumulated other comprehensive income	w	1,646	1,646
- Cash flow hedging reserve	x		(22)
- Other			1,668
- Other reserves		162	162
- Other reserves Total common equity	У	60,752	60,752
Preferred shares and other equity instruments		4,234	4,234
- of which: are qualifying Tier 1 capital	z	.,201	2,911
- of which: are subject to phase out and included in Tier 1 capital (40%)	aa		1,213
- of which: are subject to phase out and not included into Tier 1 capital			110
Total equity attributable to equity holders of the Bank	+	64,986	64,986
Non-controlling interests			
Non-controlling interests in subsidiaries		2,348	2,348
- portion allowed for inclusion into CET1	bb		1,329
- portion allowed for inclusion into Tier 1 capital	CC		239
- portion allowed for inclusion into Tier 2 capital - portion not allowed for regulatory capital	dd		95 685
Total equity		67,334	67,334
Total liabilities and equity		946,703	944,775

- (1) Consolidated Statement of Financial Position as reported in the 2018 Quarterly Report Third Quarter results (page 41). Effective Q1 2018, the Bank fully adopted IFRS 9 (Financial Instruments).
- (2) Legal Entities that are within the accounting scope of consolidation but excluded from the regulatory scope of consolidation represent the Bank's insurance subsidiaries whose principle activities include insurance, reinsurance, property and casualty insurance. Key subsidiaries are Scotia Insurance Barbados Ltd (assets: \$421MM, equity: \$319MM), Scotia Life Insurance Company (assets: \$50MM, equity: \$206MM), Scotia Ageinsurance Limited (assets: \$25MM, equity: \$116MM), Scotia Jamaica Life Insurance Co. Ltd (assets: \$570MM, equity: \$98MM), Scotia Life Trinidad and Tobago Ltd (assets: \$425MM, equity: \$72MM), Scotia Seguros SA Dominican Republic (assets: \$39MM, equity: \$14MM), Scotia Insurance Caribbean Ltd. (assets: \$11MM, equity: \$13MM), BBVA Seguros (assets: \$307MM, equity: \$94MM), and Scotia Seguros SA El Salvador (assets: \$36MM, equity: \$14MM), Scotia Insurance Caribbean Ltd.
- (3) Effective Q3 2016, securitized credit card exposures are excluded from the regulatory scope of consolidation under OSFI's Securitization Framework.



		Credit R	isk Exposures			Ot	her Exposur	es	Total
Drav	vn		Other	Exposures		Market Risk E			
Non-retail	Petail	Securitization	Repo-style	OTC Derivatives	Equity	Also subject		All Other(2)	
	retail	Securitization	Transactions		Equity			2 210	51,891
40,372	-	-	-	-		-	2 750	3,319	3,759
· ·	-	-	-	-	-	-	3,733	_	3,739
23	_	_	_	_	_	_	77 588	_	77,611
		_	_	_	_	6.491			14,930
7,031	-					0,491			340
15	_	_	_	_	_	_	340	_	15
	_	_	84 502	_	_	_	_	7	84,599
	-	-	04,532		-	31 701	_		34,991
71 677	_			04,001	1 696	01,101		843	74,216
,					1,000			0.0	,=.0
88 643	164 763				_	_	_	187	253,593
-		1 225	_		_	_			95,318
1 :									16,629
178 032				_	_	_			188,380
	,	7,007	_		_		_		(5,323)
	(190)								18,947
10,955	-	-	-	-		-	-		2,597
_	-	-	-	-	-	-	-		4,703
1 :					- :	- :			14,890
755	699	-	-	-	-	-	-		14,617
		9 518	84 502	3/ 991	1 696	38 102	89 557		946,703
	Non-retail  48,572 - 23 7,051 - 15 - 71,677  88,643 - 178,032 (568) 18,955 755 413,155	48,572	Non-retail   Retail   Securitization	Non-retail   Retail   Securitization   Repostyle Transactions	Non-retail   Retail   Securitization   Transactions   OTC Derivatives	Non-retail   Retail   Securitization   Transactions   OTC Derivatives   Equity	Non-retail   Retail   Securitization   Transactions   OTC Derivatives   Equity   Also subject to Credit Risk	Drawn         Retail         Securitization         Repo-style Transactions         OTC Derivatives         Equity         Also subject to Credit Risk           48,572         -	Draw⊤         Other Exposures         Market Risk Exposures         All Other (2)           Non-retail         Retail         Securitization         Transactions         OTC Derivatives         Equity         Also subject to Credit Risk         All Other (2)           48,572         -         -         -         -         -         3,319         -         3,319         -         -         3,319         -         -         3,319         -         -         3,319         -         -         3,319         -         -         3,319         -         -         3,319         -         -         3,319         -         -         3,319         -         -         3,319         -         -         3,319         -         -         -         3,319         -         -         -         3,319         -         -         -         3,319         -         -         -         3,319         -         -         -         3,40         -

			Credit R	isk Exposures			Ot	Total		
	Draw	/n		Other	Exposures		Market Risk Exposures			
As at April 30, 2018 (\$MM)	Non-retail	Retail	Securitization	Repo-style Transactions	OTC Derivatives	Equity	Also subject to Credit Risk		All Other <sup>(2)</sup>	
Cash and deposits with financial institutions	59,074	-	-	-	-	-	-	-	2,718	61,792
Precious metals	-	-	-	-	-	-	-	4,005	-	4,005
Trading assets:										
Securities	22	-	-	-	-	-	-	81,716	-	81,738
Loans	8,243	12	-	-	-	-	7,649	8,144	-	16,399
Other	-	-	-	-	-	-	-	1,518	-	1,518
Financial assets designated at fair value through profit or loss	13	-	-	-	-	-	-	-	-	13
Securities purchased under resale agreements and securities borrowed	-	-	-	84,167	-	-	-	-	8	84,175
Derivative financial instruments	-	-	-	-	33,949	-	30,000	-	-	33,949
Investment securities	72,087	-	-	-	-	1,561	-	-	572	74,220
Loans:										
Residential mortgages <sup>(3)</sup>	92,127	150,449		-	-	-	-	-	184	242,760
Personal loans	-	88,932	1,908	-	-	-	-	-	15	90,855
Credit cards		13,304	770	-	-	-	-	-	1,035	15,109
Business & government	164,247	3,067	6,864	-	-	-	-	-	(55)	174,123
Allowances for credit losses <sup>(4)</sup>	(571)	(769)	-	-	-	-	-	-	(3,589)	(4,929)
Customers' liability under acceptances	17,079	-	-	-	-	-	-	-	(5)	17,074
Property and equipment	-	-	-	-	-	-	-	-	2,390	2,390
Investments in associates	-	-	-	-	-	-	-	-	4,806	4,806
Goodwill and other intangible assets	-	-	-	-	-	-	-	-	12,273	12,273
Other (including Deferred tax assets)	971	605	-	-	-	-	-	-	12,464	14,040
Total	413,292	255,600	9,542	84,167	33,949	1,561	37,649	95,383	32,816	926,310

- (1) Based on the Consolidated Statement of Financial Position as reported in the 2018 Quarterly Report Third Quarter results (page 41). Effective Q1 2018, the Bank fully adopted IFRS 9 (Financial Instruments).
- (2) Includes the Bank's insurance subsidiaries' assets and all other assets which are not subject to credit and market risks.
- (3) Includes \$85.8 billion (Q2, 2018 \$89.4 billion) in mortgages guaranteed by Canada Mortgage Housing Corporation (CMHC) and portions of privately insured mortgages. CMHC guarantees under the PD substitution are reclassified to sovereign.
- (4) Amounts for AIRB exposures are reported gross of IFRS 9 specific allowances and amounts for Standardized exposures are reported net of IFRS 9 specific allowances.

#### FLOW STATEMENT FOR REGULATORY CAPITAL



					В	asel III All-in					
		IFRS 9 (1)					IAS	39 <sup>(1)</sup>			
	Q3 2018	Q2 2018	Q1 2018	Q4 2017	Q3 2017	Q2 2017	Q1 2017	Q4 2016	Q3 2016	Q2 2016	Q1 2016
(\$MM)											
Common Equity Tier 1 (CET1) capital											
Opening amount	45,025	42,990	43,352	41,369	42,474	40,540	39,989	37,690	35,911	37,645	36,965
Net income attributable to equity holders of the Bank	1,983	2,107	2,279	2,015	2,045	1,997	1,948	1,939	1,897	1,523	1,758
Dividends paid to equity holders of the Bank	(1,038)	(1,047)	(979)	(976)	(940)	(947)	(934)	(924)	(904)	(899)	(871)
Shares issued	2,596	34	62	61	21	93	138	185	114	22	42
Shared repurchased/redeemed	(74)	-	(178)	-	(299)	(572)	(138)	-	-	(15)	(65)
Removal of own credit spread (net of tax)	(33)	(21)	35	17	132	(4)	40	5	(8)	143	(142)
Movements in other comprehensive income (OCI), excluding cash flow hedges	87	1,158	(918)	1,029	(2,740)	1,611	(534)	894	627	(2,835)	842
Currency translation differences	(70)	1,222	(1,006)	1,007	(2,885)	1,835	(1,151)	802	991	(2,826)	1,455
Debt and equity investments fair valued through OCI <sup>(2)</sup>	(19)	(92)	27	(23)	(92)	103	(49)	(49)	33	13	(177)
Employee Benefits	158	5	58	29	222	(338)	667	133	(386)	(25)	(443)
Other	18	23	3	16	15	11	(1)	8	(11)	3	7
Goodwill and other intangible assets (deduction, net of related tax liability)	(2,367)	(222)	50	(159)	370	(233)	106	(123)	(166)	(121)	(161)
Other, including regulatory adjustments and transitional arrangements	598	26	(713)	(4)	306	(11)	(75)	323	219	448	(723)
Deferred tax assets that rely on future probability	(2)	41	35	18	9	23	17	3	11	41	-
IFRS 9 impact (3)	-	_	(564)					-	-	-	-
Threshold deductions	(133)	(41)	(148)	29	284	(181)	32	373	203	308	(655)
Other	733	26	(36)	(51)	13	147	(124)	(53)	5	99	(68)
Closing Amount	46,777	45,025	42,990	43,352	41,369	42,474	40,540	39,989	37,690	35,911	37,645
Other Additional Tier 1 capital											
Opening amount	5,683	5,658	6,121	4,544	4,574	4,707	5,077	4,574	4,848	4,338	4,401
Capital issuances	-	-	-	1,560	-	-	-	500	-	500	350
Redeemed capital	-	(345)			- ()	(230)	(345)	-	(345)	(345)	-
Other, capital including regulatory adjustments and transitional arrangements (NVCC)  Closing Amount	5,763	370 5,683	(463) 5,658	6,121	(30) 4,544	97 4,574	(25) 4,707	5,077	71 4,574	355 4,848	(413) 4,338
Total Tier 1 capital	52,540	50,708	48,648	49,473	45,913	47,048	45,247	45,066	42,264	40,759	41,983
·	,	,	- ,-		- /	,	-,	,	,	-,	,
Tier 2 capital Opening amount	7.008	6,989	6,640	8,016	8,262	8,153	8,264	8.207	8,080	8,430	6,864
Capital issuances	7,000	0,505	0,040	0,010	0,202	0,100	0,204	0,207	0,000	0,430	2,537
Redeemed capital	_	(119)	(113)	(1,500)	_	_	-	-	(16)	(19)	(1,000)
Amortization adjustments	_	(5)	()	(.,555)	_	_	-	-	(.5)	(.5)	(.,500)
Other, including regulatory adjustments and transitional adjustments (NVCC)	289	138	462	124	(246)	109	(111)	57	143	(331)	29
Closing Amount	7,297	7,008	6,989	6,640	8,016	8,262	8,153	8,264	8,207	8,080	8,430
Total regulatory capital	59,837	57,716	55,637	56,113	53,929	55,310	53,400	53,330	50,471	48,839	50,413

<sup>(1)</sup> Effective Q1 2018, the Bank adopted IFRS 9 (Financial Instruments). The full transitional impact on regulatory capital from IFRS 9 was recognized upon adoption. Prior period results and ratios are based on International Accounting Standard (IAS) 39.

<sup>(2)</sup> Referred to as Available-for-Sale under IAS 39 (prior to Fiscal 2018).

<sup>(3)</sup> Represents the full transitional impact on retained earnings from the Bank's adoption of IFRS 9 (Financial Instruments) on November 1, 2017.

#### **RISK-WEIGHTED ASSETS AND CAPITAL RATIOS**



(\$B)					Ва	sel III - All-in					
. ,		IFRS 9 (1)					IAS 39	(1)			
	Q3 2018	Q2 2018	Q1 2018	Q4 2017	Q3 2017	Q2 2017	Q1 2017	Q4 2016	Q3 2016	Q2 2016	Q1 2016
RISK-WEIGHTED ASSETS:(2)											
On-Balance Sheet Assets											
Cash Resources	3.3	3.5	3.1	3.1	3.0	4.3	3.5	3.7	3.9	4.1	3.7
Securities	8.9	8.5	8.6	8.8	9.2	10.2	9.4	9.6	10.7	10.3	11.2
Residential Mortgages	37.2	32.0	31.6	30.0	28.8	27.9	25.7	25.0	23.2	22.5	25.9
Loans											
- Personal Loans	59.6	54.3	53.7	53.3	52.1	51.9	50.5	52.0	49.5	49.0	48.7
- Non-Personal Loans	131.1	118.6	114.3	116.0	115.1	121.0	114.6	118.8	118.6	120.4	125.1
All Other	32.1 272.2	32.2 <b>249.1</b>	31.6 <b>242.9</b>	30.0 <b>241.2</b>	29.5 <b>237.7</b>	29.8 <b>245.1</b>	29.2 <b>232.9</b>	28.8 <b>237.9</b>	27.6 <b>233.5</b>	27.0 <b>233.2</b>	29.0 <b>243.6</b>
Off-Balance Sheet Assets	212.2	249.1	242.9	241.2	231.1	245.1	232.9	237.9	233.5	233.2	243.6
Indirect Credit Instruments	55.1	53.5	51.2	52.8	51.6	58.1	53.1	54.1	51.0	48.5	49.2
Derivative Instruments	12.9	12.1	10.1	10.7	11.2	12.0	13.4	12.1	12.9	13.2	20.0
Benvative instruments	68.0	65.6	61.3	63.5	62.8	70.1	66.5	66.2	63.9	61.7	69.2
	33.3	33.3	00	55.5	02.0				33.3	• • • • • • • • • • • • • • • • • • • •	
Total Credit Risk before AIRB scaling factor	340.2	314.7	304.2	304.7	300.5	315.2	299.4	304.1	297.4	294.9	312.8
AIRB Scaling factor <sup>(3)</sup>	11.0	10.7	10.5	10.5	10.3	10.9	10.4	10.7	10.5	10.6	11.1
Total Credit Risk after AIRB scaling factor	351.2	325.4	314.7	315.2	310.8	326.1	309.8	314.8	307.9	305.5	323.9
Market Risk - Risk Assets Equivalent	16.4	8.8	9.9	7.8	8.9	9.2	10.6	10.6	11.7	13.9	14.1
Operational Risk - Risk Assets Equivalent	43.8	41.7	41.2	40.6	40.1	39.6	39.2	38.6	38.1	37.5	36.5
Regulatory Capital Floor Adjustment to CET1 RWA (4)	-	=	16.4	12.8	5.6	-	=	=	-	=	=
CET1 Risk-Weighted Assets (4)(5)	411.4	375.9	382.2	376.4	365.4	374.9	359.6	364.0	357.7	356.9	374.5
Tier 1 Risk-Weighted Assets <sup>(4)(5)</sup>	411.6	376.0	382.2	376.4	365.4	375.1	359.9	364.5	358.2	357.4	375.4
Total Risk-Weighted Assets (4)(5)	411.8	376.2	382.2	376.4	365.4	375.4	360.2	364.9	358.6	357.8	376.1
Total Risk-weighted Assets ****	411.0	370.2	302.2	370.4	303.4	373.4	300.2	304.3	330.0	337.0	370.1
REGULATORY CAPITAL RATIOS (%):											
Common Equity Tier 1	11.4	12.0	11.2	11.5	11.3	11.3	11.3	11.0	10.5	10.1	10.1
Tier 1	12.8	13.5	12.7	13.1	12.6	12.5	12.6	12.4	11.8	11.4	11.2
Total	14.5	15.3	14.6	14.9	14.8	14.7	14.8	14.6	14.1	13.6	13.4
. • • • • • • • • • • • • • • • • • • •	14.0	10.0	1 1.0	11.0	1 1.0	1 1.7	1 1.5	1 1.5	11.1	10.0	10.1

<sup>(1)</sup> Effective Q1 2018, the Bank adopted IFRS 9 (Financial Instruments). The full transitional impact on regulatory capital from IFRS 9 was recognized upon adoption. Prior period results and ratios are based on International Accounting Standard (IAS) 39.

<sup>(2)</sup> For purposes of this presentation only, Risk-Weighted Assets (RWA) are shown by balance sheet categories. Details by Basel III exposure type are shown on pages 11-12 entitled, "Exposure at Default and Risk-Weighted Assets for Credit Risk Portfolios".

<sup>(3)</sup> The Basel Framework requires an additional 6% scaling factor to AIRB credit risk portfolios (excluding CVA and exposures with a risk-weight of 1250%).

<sup>(4)</sup> As at July 31, 2018 and April 30, 2018, the Bank does not have a regulatory capital floor add-on for CET1, Tier 1 and Total capital risk-weighted assets (as at January 31, 2018: \$16.4 billion, \$16.3 billion and \$16.2 billion respectively; as at October 31, 2017: \$12.8 billion, \$12.6 billion, \$16.3 billion, respectively; as at July 31, 2017: \$5.6 billion, \$5.3 billion, and \$5.1 billion, respectively).

<sup>(5)</sup> In accordance with OSFI's requirements, in 2018 scalars for CVA RWA of 0.80, 0.83 and 0.86 were used to compute the CET1 capital ratio, Tier 1 capital ratio and Total capital ratio, respectively.



Credit Risk Risk-weighted Assets (RWA) (1)	Q3 2	2018	Q2 2018		
(\$MM)	Credit Risk	Of which Counterparty Credit Risk	Credit Risk	Of which Counterparty Credit Risk	
CET1 Credit risk-weighted assets as at beginning of Quarter	325,346	18,100	314,739	17,209	
Book size <sup>(2)</sup>	2,482	(3,866)	5,235	340	
Book quality	1,599	(32)	(1,079)	(19)	
Model updates <sup>(3)</sup>	-	-	(1,037)	-	
Methodology and policy <sup>(4)</sup>	-	-	-	-	
Acquisitions and disposals	21,056	2,998	-	-	
Foreign exchange movements	704	149	7,488	570	
Other	•	-	-	-	
CET1 Credit risk-weighted assets as at end of Quarter	351,187	17,349	325,346	18,100	
Tier 1 CVA scalar	179	179	141	141	
Tier 1 Credit risk-weighted assets as at end of Quarter	351,366	17,528	325,487	18,241	
Total CVA scalar	178	178	141	141	
Total Credit risk-weighted assets as at end of Quarter	351,544	17,706	325,628	18,382	

- (1) In accordance with OSFI's requirements, in 2018 scalars for CVA RWA of 0.80, 0.83 and 0.86 were used to compute the CET1 capital ratio, Tier 1 capital ratio and Total capital ratio, respectively.
- (2) Book size is defined as organic changes in book size and composition (including new business and maturing loans).
- (3) Model updates are defined as model implementation, change in model scope or any change to address model enhancement.
- (4) Methodology and policy is defined as methodology changes to the calculations driven by regulatory policy changes, such as new regulation (e.g. Basel III).

Market Risk RWA (\$MM)	Q3 2018	Q2 2018
Market risk-weighted assets as at beginning of Quarter	8,835	9,905
Movement in risk levels <sup>(1)</sup>	4,532	(1,070)
Model updates <sup>(2)</sup>	_ !	-
Methodology and policy <sup>(3)</sup>	_ !	-
Acquisitions and disposals	3,035	-
Other	-	-
Market risk-weighted assets as at end of Quarter	16,402	8,835

- (1) Movement in risk levels are defined as changes in risk due to position changes and market movements. Foreign exchange movements are embedded within Movement in risk levels.
- (2) Model updates are defined as updates to the model to reflect recent experience and change in model scope.
- (3) Methodology and policy is defined as methodology changes to the calculations driven by regulatory policy changes (e.g. Basel III).

Operational Risk RWA (\$MM)	Q3 2018	Q2 2018
Operational risk-weighted assets as at beginning of Quarter	41,720	41,205
Acquisitions and disposals	1,541	-
Higher Revenue	576	515
Operational risk-weighted assets as at end of Quarter	43,837	41,720

#### RISK-WEIGHTED ASSETS ARISING FROM THE ACTIVITIES OF THE BANK'S BUSINESSES



			Q3 2018		
CET1 Risk-weighted Assets (RWA)	Canadian Banking	International Banking	Global Banking & Markets	Other	All Bank
CET1 RWA (\$B) Proportion of Bank	\$128.5 31%			\$8.4 3%	\$411.4 100%
Comprised of: Credit risk Market risk Operational risk	85% - % 15%	3%	10%	94% 13% -7%	85% 4% 11%

			Q2 2018		
CET1 Risk-weighted Assets (RWA)	Canadian Banking	International Banking	Global Banking & Markets	Other	All Bank
CET1 RWA (\$B) Proportion of Bank	\$123.3 33%		·	\$9.4 2%	·
Comprised of: Credit risk Market risk Operational risk	85% - % 15%	1%	6%	94% 11% -5%	2%

#### EXPOSURE AT DEFAULT AND RISK-WEIGHTED ASSETS FOR CREDIT RISK PORTFOLIOS



(\$MM)				Q3 2	2018			Q2 20	018	Q1 2	018	Q4 2	017	Q3 2	017	Q2 2	017	Q1 20	017
		AIF	RB	Standa	rdized	Tota	al	Tota	al	Tot	al	To	tal	Tot	tal	Tot	al	Tot	tal
Exposure Type	Sub-type	EAD <sup>(1)</sup>	RWA <sup>(2)</sup>																
Non-Retail																			
Corporate	Drawn	143,254	69,966	61,027	59,100	204,281	129,066	190,150	116,460	182,052	112,280	183,262	114,622	180,278	113,458	181,498	119,608	171,433	113,535
	Undrawn	82,990	32,005	5,112	5,063	88,102	37,068	85,597	36,366	79,478	34,185	81,214	34,473	77,423	34,172	82,966	39,115	74,738	34,789
	Other(3)(4)	42,317	10,228	4,137	4,072	46,454	14,300	42,933	15,170	42,633	15,696	44,190	15,431	42,369	15,098	43,339	16,227	38,657	16,060
	Total	268,561	112,199	70,276	68,235	338,837	180,434	318,680	167,996	304,163	162,161	308,666	164,526	300,070	162,728	307,803	174,950	284,828	164,384
Bank	Drawn	17,891	3,451	3,631	2,976	21,522	6,427	19,812	6,084	21,021	6,459	22,223	6,115	18,494	5,974	24,561	7,125	20,462	5,670
	Undrawn	2,435	334	109	108	2,544	442	2,605	411	2,681	452	2,656	477	2,511	430	3,895	732	1,953	345
	Other(3)(4)	10,594	1,111	55	56	10,649	1,167	10,305	1,065	10,534	1,598	9,132	1,623	9,805	1,341	11,074	1,639	9,118	1,328
	Total	30,920	4,896	3,795	3,140	34,715	8,036	32,722	7,560	34,236	8,509	34,011	8,215	30,810	7,745	39,530	9,496	31,533	7,343
Sovereign	Drawn	94,690	3,753	6,888	1,407	101,578	5,160	113,895	5,389	109,002	4,692	103,797	4,665	104,750	4,542	93,554	4,976	95,419	4,640
	Undrawn	766	81	23	11	789	92	786	95	752	104	1,023	299	743	102	963	134	898	103
	Other(3)(4)	1,292	61	3	3	1,295	64	1,286	61	943	22	977	26	911	10	769	10	1,018	13
	Total	96,748	3,895	6,914	1,421	103,662	5,316	115,967	5,545	110,697	4,818	105,797	4,990	106,404	4,654	95,286	5,120	97,335	4,756
Total Non-Retail	Drawn	255,835	77,170	71,546	63,483	327,381	140,653	323,857	127,933	312,075	123,431	309,282	125,402	303,522	123,974	299,613	131,709	287,314	123,845
	Undrawn	86,191	32,420	5,244	5,182	91,435	37,602	88,988	36,872	82,911	34,741	84,893	35,249	80,677	34,704	87,824	39,981	77,589	35,237
	Other(3)(4)	54,203	11,400	4,195	4,131	58,398	15,531	54,524	16,296	54,110	17,316	54,299	17,080	53,085	16,449	55,182	17,876	48,793	17,401
	Total	396,229	120,990	80,985	72,796	477,214	193,786	467,369	181,101	449,096	175,488	448,474	177,731	437,284	175,127	442,619	189,566	413,696	176,483
Retail																			
Residential Mortgages	Drawn	205,113	17,949	45,586	19,291	250,699	37,240	240,015	31,998	236,753	31,567	234,620	30,024	229,568	28,751	226,173	27,857	221,928	25,739
	Undrawn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total	205,113	17,949	45,586	19,291	250,699	37,240	240,015	31,998	236,753	31,567	234,620	30,024	229,568	28,751	226,173	27,857	221,928	25,739
Secured Lines Of Credit	Drawn	20,968	3,553	-	-	20,968	3,553	20,648	3,384	20,295	3,375	20,281	3,351	20,234	3,193	19,642	3,079	19,099	3,056
	Undrawn	17,672	1,056	-	-	17,672	1,056	17,409	1,050	15,795	920	15,356	917	15,007	857	14,648	827	14,334	793
	Total	38,640	4,609	-	-	38,640	4,609	38,057	4,434	36,090	4,295	35,637	4,268	35,241	4,050	34,290	3,906	33,433	3,849
Qualifying Revolving Retail	Drawn	17,948	10,317	-	-	17,948	10,317	17,311	9,565	17,116	9,973	16,939	9,676	16,908	9,580	16,875	9,413	16,753	9,683
Exposures (QRRE)	Undrawn	27,794	3,373	-	-	27,794	3,373	27,240	3,235	27,886	3,349	27,445	3,291	26,726	3,164	26,309	3,102	25,916	3,085
	Total	45,742	13,690	-	-	45,742	13,690	44,551	12,800	45,002	13,322	44,384	12,967	43,634	12,744	43,184	12,515	42,669	12,768
Other Retail	Drawn	30,666	14,784	42,277	30,897	72,943	45,681	67,062	41,344	65,722	40,305	65,924	40,318	64,455	39,374	63,900	39,367	61,325	37,777
	Undrawn	1,515	415			1,515	415	1,340	353	1,317	319	1,300	311	1,183	276	1,042	233	1,009	225
	Total	32,181	15,199	42,277	30,897	74,458	46,096	68,402	41,697	67,039	40,624	67,224	40,629	65,638	39,650	64,942	39,600	62,334	38,002
Total Retail	Drawn	274,695	46,603	87,863	50,188	362,558	96,791	345,036	86,291	339,886	85,220	337,764	83,369	331,165	80,898	326,590	79,716	319,105	76,255
	Undrawn	46,981	4,844	-	-	46,981	4,844	45,989	4,638	44,998	4,588	44,101	4,519	42,916	4,297	41,999	4,162	41,259	4,103
	Total	321,676	51,447	87,863	50,188	409,539	101,635	391,025	90,929	384,884	89,808	381,865	87,888	374,081	85,195	368,589	83,878	360,364	80,358
Securitizations		23,567 20,030	2,286 7,275	398	398	23,567 20,428	2,286 7.673	24,196 22,495	2,461 7,733	23,327 23,371	2,426 6,834	23,591 24,483	2,529 7,147	23,278 21,844	2,529 6,942	24,785 24,370	2,717 7.547	23,589 24,842	2,561 8,295
Trading Derivatives Derivatives - credit valuation adjust	mont(4)	20,030	7,275 3,406	396	1,349	20,428	4,755	22,495	3,757	23,3/1	2,760	24,463	2,988	21,044	3,733	24,370	3,923	24,042	4,775
-																			
Total Credit Risk (Excluding Equi	ities & Other Assets)	761,502	185,404	169,246	124,731	930,748	310,135	905,085	285,981	880,678	277,316	878,413	278,283	856,487	273,526	860,363	287,631	822,491	272,472
Equities		1,696	1,571	-	-	1,696	1,571	1,561	1,438	1,424	1,298	1,281	1,188	1,880	1,811	2,333	2,276	2,386	2,426
Other Assets		-	-	57,889	28,467	57,889	28,467	52,393	27,185	53,211	25,593	50,631	25,201	49,430	25,172	51,607	25,339	46,171	24,380
Total Credit Risk (Before Scaling	Factor)	763,198	186,975	227,135	153,198	990,333	340,173	959,039	314,604	935,313	304,207	930,325	304,672	907,797	300,509	914,303	315,246	871,048	299,278
Add-on for 6% Scaling Factor <sup>(5)</sup>			11,014				11,014		10,742		10,532		10,487		10,328		10,864		10,441
Total Credit Risk		763,198	197,989	227,135	153,198	990,333	351,187	959,039	325,346	935,313	314,739	930,325	315,159	907,797	310,837	914,303	326,110	871,048	309,719

<sup>(1)</sup> Exposure at default, before credit risk mitigation for AIRB exposures, after related IFRS 9 allowances for credit losses for Standardized exposures.
(2) CET1 Risk-Weighted Assets.

<sup>(</sup>a) CET Nask-Weignited Nasels.

(3) Includes lending instruments such as letters of credit and letters of guarantee; banking book derivatives and repo-style exposures, net of related collateral.

(4) In accordance with OSFI's requirements, in 2018 scalars for CVA RWA of 0.80, 0.83 and 0.86 were used to compute the CET1 capital ratio, Tier 1 capital ratio and Total capital ratio, respectively.

(5) The Basel Framework requires an additional 6% scaling factor to AIRB credit risk portfolios (excluding CVA and exposures with a risk weight of 1250%).

### EXPOSURE AT DEFAULT AND RISK-WEIGHTED ASSETS FOR CREDIT RISK PORTFOLIOS (CONTINUED)



(\$MM)		Q4 2	016	Q3 2	016	Q2 20	16 <sup>(6)</sup>	Q1 2	016	Q4 2	015	Q3 2	015	Q2 2	015	Q1 2	2015
Exposure Type	Sub-type	EAD <sup>(1)</sup>	RWA <sup>(2)</sup>	EAD <sup>(1)</sup>	RWA <sup>(2)</sup>	EAD <sup>(1)</sup>	RWA <sup>(2)</sup>	EAD (1)	RWA <sup>(2)</sup>	EAD (1)	RWA <sup>(2)</sup>	EAD (1)	RWA <sup>(2)</sup>	EAD (1)	RWA <sup>(2)</sup>	EAD (1)	RWA <sup>(2)</sup>
Non-Retail																	
Corporate	Drawn	175,784	117,178	175,250	117,309	173,987	118,625	175,672	122,318	157,514	112,836	151,360	106,697	146,075	100,609	145,012	101,339
	Undrawn	73,711	34,499	70,614	32,197	67,024	30,648	71,934	32,458	58,915	29,035	56,306	27,606	51,361	24,589	53,974	24,963
	Other <sup>(3)</sup>	39,943	16,356	40,458	16,043	42,964	15,968	45,648	16,314	40,425	15,476	43,981	16,093	37,643	14,254	35,068	12,327
	Total	289,438	168,033	286,322	165,549	283,975	165,241	293,254	171,090	256,854	157,347	251,647	150,396	235,079	139,452	234,054	138,629
Bank	Drawn	26,022	6,567	26,609	6,662	24,836	6,579	25,881	7,522	27,165	8,344	27,400	7,109	25,700	6,679	32,358	8,435
	Undrawn Other <sup>(3)</sup>	1,982	368 2,567	1,894	271	1,847	315	1,784	260	11,386	3,726	11,741	3,793	11,406	3,672	12,222	3,914
	Total	13,175 <b>41,179</b>	9,502	12,313 <b>40.816</b>	1,749 <b>8,682</b>	10,497 <b>37,180</b>	1,539 <b>8,433</b>	12,430 <b>40,095</b>	2,069 <b>9,851</b>	14,906 <b>53,457</b>	3,253 <b>15,323</b>	12,351 <b>51.492</b>	2,188 <b>13,090</b>	10,190 <b>47,296</b>	1,830 <b>12,181</b>	9,535 <b>54,115</b>	1,753 <b>14,102</b>
Sovereign	Drawn	88,760	5,161	108,164	5,266	99,458	5,698	109,153	5,654	96,263	4,203	102,869	5,471	80,325	5,527	82,035	5,544
Sovereign	Undrawn	1,052	119	841	98	872	129	816	3,034	2,133	355	1,802	168	1,543	161	1,465	139
	Other <sup>(3)</sup>	497	12	547	3	371	4	508	8	1,016	36	694	46	544	15	1,137	63
	Total	90,309	5,292	109,552	5,367	100,701	5,831	110,477	5,708	99,412	4,594	105,365	5,685	82,412	5,703	84,637	5,746
Total Non-retail	Drawn	290,566	128,906	310,023	129,237	298,281	130,902	310,706	135,494	280,942	125,383	281,629	119,277	252,100	112,815	259,405	115,318
	Undrawn	76,745	34,986	73,349	32,566	69,743	31,092	74,534	32,764	72,434	33,116	69,849	31,567	64,310	28,422	67,661	29,016
	Other <sup>(3)</sup>	53,615	18,935	53,318	17,795	53,832	17,511	58,586	18,391	56,347	18,765	57,026	18,327	48,377	16,099	45,740	14,143
- · ·	Total	420,926	182,827	436,690	179,598	421,856	179,505	443,826	186,649	409,723	177,264	408,504	169,171	364,787	157,336	372,806	158,477
Retail	Drawn	222 247	05.000	047.500	00 007	044.000	00.407	047.045	05.040	045 500	04.007	044400	04.054	044 005	00.400	040 405	04.000
Residential Mortgages	Undrawn	220,917	25,028	217,538	23,207	214,633	22,467	217,345	25,942	215,590	24,967	214,183	24,854	211,805	22,196	213,185	21,893
	Total	220,917	25,028	217,538	23,207	214,633	22,467	217,345	25,942	215,590	24,967	214,183	24,854	211,805	22,196	213,185	21,893
Secured Lines Of Credit	Drawn	19,233	4,497	19,200	4,412	18,918	4,390	18,550	4,310	18,804	4,197	18,992	4,207	19,047	4,293	18,952	4,435
	Undrawn	14,587	1,359	14,298	1,286	14,045	1,268	13,778	1,225	12,631	1,133	12,553	1,181	12,354	1,158	12,312	1,243
	Total	33,820	5,856	33,498	5,698	32,963	5,658	32,328	5,535	31,435	5,330	31,545	5,388	31,401	5,451	31,264	5,678
Qualifying Revolving	Drawn Undrawn	16,717 21,108	9,463 2,656	16,483 20,519	9,316 2,564	17,474 20,100	9,997 2,549	17,244 19,693	9,953 2,481	16,910 17,705	10,031 2,241	16,602 17,123	9,662	16,426 16,734	9,556 2,058	16,257	9,564
	Total	37,825	12,119	37,002	11,880	37,574	12,549	36,937	12,434	34,615	12,272	33,725	2,135 <b>11,797</b>	33,160	11,614	16,716 <b>32,973</b>	2,151 <b>11,715</b>
Other Retail	Drawn	62,182	38,006	58,627	35,742	56,615	34,574	56,432	34,436	53,313	32,002	51,959	31,308	48,315	29,555	48,656	29,929
Other Retail	Undrawn	799	203	691	165	674	159	669	158	712	178	677	164	660	156	40,030	165
	Total	62,981	38,209	59,318	35,907	57,289	34,733	57,101	34,594	54,025	32,180	52,636	31,472	48,975	29,711	49,323	30,094
Total Retail	Drawn	319,049	76,994	311,848	72,677	307,640	71,428	309,571	74,641	304,617	71,197	301,736	70,031	295,593	65,600	297,050	65,821
	Undrawn	36,494	4,218	35,508	4,015	34,819	3,976	34,140	3,864	31,048	3,552	30,353	3,480	29,748	3,372	29,695	3,559
0	Total	355,543	81,212	347,356	76,692	342,459	75,404	343,711	78,505	335,665	74,749	332,089	73,511	325,341	68,972	326,745	69,380
Securitizations Trading Derivatives		25,025 23,421	2,613 6,599	25,110 23,633	2,793 6,758	23,763 23,144	2,588 6,924	23,527 31,216	2,719 9,042	21,000 28,234	2,759 8,232	20,926 30,013	3,705 8,485	20,083 28,854	3,711 7,971	21,166 36,673	4,086 10,178
Derivatives - credit valuation a	ndiustment <sup>(4)</sup>	-	4,165	-	4,749	20,144	4,778	-	8,304	20,204	7,183	-	7,282	-	6,732	-	8,154
Domain Co Croan Valuation C	iajaoimoni.		.,		.,		.,		-,		.,		- ,		-,		-,
Total Credit risk (excl. Equit	ies & Other Assets)	824,915	277,416	832,789	270,590	811,222	269,199	842,280	285,219	794,622	270,187	791,532	262,154	739,065	244,722	757,390	250,275
Equities		2,042	2,042	2,331	2,331	2,393	2,393	2,703	2,703	2,985	2,985	3,427	3,427	3,636	3,636	4,132	4,132
Other Assets		49,829	24,659	50,229	24,486	53,444	23,297	59,267	24,882	50,873	24,265	52,878	23,551	54,146	23,056	59,475	24,208
		876,786	304,117	885,349	297,407	867,059	294,889	904,250	312,804	848,480	297,437	847,837	289,132	796,847	271,414	820,997	278,615
Add-on for 6% scaling factor <sup>(5)</sup>	)		10,705		10,513		10,576		11,095		10,597		10,183		9,593		9,801
Total Credit Risk		876,786	314,822	885,349	307,920	867,059	305,465	904,250	323,899	848,480	308,034	847,837	299,315	796,847	281,007	820,997	288,416

<sup>(1)</sup> Exposure at default, before credit risk mitigation for AIRB exposures, after related allowances for credit losses for Standardized exposures.

<sup>(2)</sup> CET1 Risk-Weighted Assets.

<sup>(3)</sup> Includes lending instruments such as letters of credit and letters of guarantee; banking book derivatives and repo-style exposures, net of related collateral.

<sup>(4)</sup> In accordance with OSFI's requirements, in 2018 scalars for CVA RWA of 0.80, 0.83 and 0.86 were used to compute the CET1 capital ratio, Tier 1 capital ratio and Total capital ratio, respectively.

<sup>(5)</sup> The Basel Framework requires an additional 6% scaling factor to AIRB credit risk portfolios (excluding exposure with risk weight of 1250%).

<sup>(6)</sup> As of Q2 2016, the bank implemented the Internal Modelling Method for determination of Counterparty Credit Risk and Credit Valuation Adjustment (CVA) RWA.

# CREDIT RISK EXPOSURES BY GEOGRAPHY (1)(2)



## **Exposure at Default**

(\$MM)			Q3 2018					Q2 2018		
		Non-Retail		Deteil	Total		Non-Retail		Deteil	Tatal
	Drawn	Undrawn	Other (3)	Retail	Total	Drawn	Undrawn	Other (3)	Retail	Total
Canada	98,613	40,098	36,859	339,036	514,606	98,088	38,869	37,025	333,999	507,981
USA	88,011	33,556	40,772	-	162,339	101,086	31,722	40,841	-	173,649
Chile	26,798	677	5,485	24,545	57,505	13,479	774	1,720	14,042	30,015
Mexico	19,786	1,279	2,691	10,974	34,730	18,844	1,379	2,506	10,322	33,051
Peru	16,287	1,394	3,070	8,238	28,989	15,570	1,510	2,924	7,956	27,960
Colombia	5,642	562	411	8,175	14,790	5,491	546	388	6,292	12,717
Other International										
Europe	24,906	7,950	9,325	-	42,181	21,244	8,394	11,401	-	41,039
Caribbean	17,968	1,578	1,116	17,865	38,527	18,093	1,640	1,254	17,678	38,665
Latin America (other)	8,095	647	366	706	9,814	8,133	724	942	736	10,535
All Other	21,275	3,694	2,298	-	27,267	23,829	3,430	2,214	-	29,473
Total	327,381	91,435	102,393	409,539	930,748	323,857	88,988	101,215	391,025	905,085

	Q1 2018	Q4 2017	Q3 2017	Q2 2017	Q1 2017
Canada	504,021	502,224	482,840	481,291	472,304
USA	157,375	157,386	156,672	151,257	141,195
Chile	28,537	27,190	26,306	26,701	24,367
Mexico	31,653	30,528	33,202	30,094	24,561
Peru	26,834	28,733	27,474	29,973	27,368
Colombia	12,294	10,859	10,586	11,399	10,597
Other International					
Europe	43,940	43,030	43,344	47,129	41,444
Caribbean	37,355	39,358	38,484	42,217	40,009
Latin America (other)	9,331	9,035	8,225	9,433	8,995
All Other	29,338	30,070	29,354	30,869	31,651
Total	880,678	878,413	856,487	860,363	822,491

<sup>(1)</sup> Before credit risk mitigation, excluding equity investment securities and other assets.

<sup>(2)</sup> Geographic segmentation is based upon the location of the ultimate risk of the credit exposure.

<sup>(3)</sup> Includes off-balance sheet lending instruments such as letters of credit and letters of guarantee, OTC derivatives, securitization and repo-style transactions net of related collateral.

# AIRB CREDIT RISK EXPOSURES BY MATURITY (1)(2)



#### NON-RETAIL AND RETAIL PORTFOLIO EXPOSURE AT DEFAULT

(\$MM)		Q3 :	2018			Q2 :	2018	
	Drawn	Undrawn	Other (3)	Total	Drawn	Undrawn	Other (3)	Total
Non-Retail								
Less than 1 year	129,813	25,654	66,233	221,700	139,609	24,410	61,385	225,404
1 to 5 years	117,780	58,365	26,266	202,411	112,843	56,503	30,027	199,373
Over 5 Years	8,242	2,172	5,301	15,715	11,418	2,441	6,696	20,555
Total Non-Retail	255,835	86,191	97,800	439,826	263,870	83,354	98,108	445,332
Retail								
Less than 1 year	30,115	19,187		49,302	31,408	18,750		50,158
1 to 5 years	188,710			188,710	185,391	-		185,391
Over 5 Years	15,487			15,487	15,670	-		15,670
Revolving Credits <sup>(4)</sup>	40,383	27,794		68,177	39,316	27,240		66,556
Total Retail	274,695	46,981		321,676	271,785	45,990		317,775
Total	530,530	133,172	97,800	761,502	535,655	129,344	98,108	763,107

	Q1 2018	Q4 2017	Q3 2017	Q2 2017
Non-Retail				
Less than 1 year	222,092	213,124	215,852	211,844
1 to 5 years	187,469	192,087	180,521	187,145
Over 5 Years	18,796	23,217	18,309	20,113
Total Non-Retail	428,357	428,428	414,682	419,102
Retail				
Less than 1 year	50,182	51,045	47,810	39,967
1 to 5 years	182,504	178,940	177,145	176,341
Over 5 Years	15,860	16,299	17,009	19,388
Revolving Credits <sup>(4)</sup>	66,657	66,027	65,215	64,051
Total Retail	315,203	312,311	307,179	299,747
Total	743,560	740,739	721,861	718,849

<sup>(1)</sup> Before credit risk mitigation, excluding equity investment securities and other assets.

<sup>(2)</sup> Remaining term to maturity of the credit exposure.

<sup>(3)</sup> Off-balance sheet lending instruments such as letters of credit and letters of guarantee, securitization, derivatives and repo-style transactions net of related collateral.

<sup>(4)</sup> Credit cards and lines of credit with unspecified maturity.

## STANDARDIZED CREDIT RISK EXPOSURES BY RISK WEIGHT



#### EXPOSURE AT DEFAULT (1)

(\$MM)				Q3 2018			Q2 2018							
Risk-weight		Non-R	etail			Retail			Non-R	etail			Retail	
Nisk-weigiit	Corporate	Bank	Sovereign	Total	Res Mtgs	Other Retail	Total	Corporate	Bank	Sovereign	Total	Res Mtgs	Other Retail	Total
0%	2,106	-	4,430	6,536	4,116	1,471	5,587	2,117	-	3,748	5,865	3,319	1,327	4,646
20%	361	794	-	1,155	1,330	-	1,330	501	356	-	857	1,338	-	1,338
35%	-	-	-	-	28,413	-	28,413	-	-	-	-	21,376	-	21,376
50%	314	41	2,126	2,481	-	-	-	14	77	1,306	1,397	6	277	283
75%	-	-	-	-	10,589	40,416	51,005	-	-	-	-	9,118	34,983	44,101
100%	66,872	2,959	358	70,189	1,138	-	1,138	56,275	2,529	999	59,803	982	-	982
150%+	1,021	1	-	1,022	-	390	390	806	-	-	806	-	523	523
Total	70,674	3,795	6,914	81,383	45,586	42,277	87,863	59,713	2,962	6,053	68,728	36,139	37,110	73,249

	Q1 20	)18	Q4 20	017	Q3 20	017	Q2 20	)17	Q1 20	)17	Q4 20	016	Q3 20	)16
Risk-weight	Non-Retail	Retail												
0%	6,264	4,268	6,122	3,998	6,378	3,629	7,981	3,107	6,892	2,779	7,801	2,507	7,117	2,078
20%	1,368	1,320	1,154	1,593	1,367	1,587	1,400	1,780	1,259	1,737	2,326	1,823	2,037	1,821
35%	-	19,140	-	19,771	-	19,069	-	19,343	-	17,715	-	17,025	-	16,295
50%	2,795	131	2,151	133	2,032	277	1,808	339	282	331	462	345	634	419
75%	-	43,279	-	42,006	-	40,421	-	42,226	-	39,257	-	41,048	-	36,866
100%	56,323	1,005	57,919	1,142	57,084	1,048	60,318	1,135	55,967	1,117	55,022	1,221	54,192	1,295
150%+	687	537	774	911	863	871	1,165	912	648	837	761	832	716	998
Total	67,437	69,680	68,120	69,554	67,724	66,902	72,672	68,842	65,048	63,773	66,372	64,801	64,696	59,772

<sup>(1)</sup> Effective Q1 2018, net of specific IFRS 9 allowances for credit losses, after credit risk mitigation. Prior period specific allowances are based on IAS 39.



#### NON-RETAIL AIRB PORTFOLIO - CREDIT QUALITY

(\$MM)			Q3 2018										Q2 2018		
Category external ratings (1)	Internal grades	PD bands <sup>(2)</sup>	Drawn Exposure at Default <sup>(3)</sup>	Undrawn Exposure at Default <sup>(3)</sup>	Other Exposure at Default <sup>(3)</sup>	Total Exposure at Default <sup>(3)</sup>	RWA	Weighted Average PD <sup>(4)(7)</sup>	Weighted Average LGD <sup>(5)(7)</sup>	Weighted Average RW <sup>(6)(7)</sup>	Total Exposure at Default <sup>(3)</sup>	RWA	Weighted Average PD <sup>(4)(7)</sup>	Weighted Average LGD <sup>(5)(7)</sup>	Weighted Average RW <sup>(6)(7</sup>
			\$	\$	\$	\$	\$	%	%	%	\$	\$	%	%	%
Investment Grade															
Corporate			79,321	62,739	44,562	186,622	52,074	0.12	41	28	176,566	49,319	0.12	41	28
	99	0.00% - 0.05%	367	336	677	1,380	135	0.03	45	10	1,183	102	0.03	45	9
AAA to AA+	98	0.00% - 0.05%	292	1,099	757	2,148	171	0.04	28	8	2,703	222	0.04	32	8
AA to A-	95	0.05% - 0.13%	6,557	8,209	7,612	22,378	3,062	0.05	40	14	19,317	2,948	0.05	40	15
AA to A-	90	0.06% - 0.14%	14,305	14,630	11,315	40,250	6,290	0.06	36	16	39,060	6,679	0.06	37	17
BBB+ to BBB	87	0.09% - 0.22%	19,579	12,852	9,822	42,253	10,674	0.10	41	25	41,634	10,732	0.10	41	26
BBB+ to BBB	85	0.13% - 0.32%	18,120	13,149	9,494	40,763	15,003	0.16	45	37	37,684	13,397	0.16	45	36
BBB-	83	0.19% - 0.46%	20,101	12,464	4,885	37,450	16,739	0.24	45	45	34,985	15,239	0.24	45	44
Bank_			15,880	2,334	14,932	33,146	5,141	0.10	35	16	36,308	6,455	0.10	35	18
	99	0.00% - 0.05%	10	210	-	220	7	0.03	30	3	226	9	0.03	31	4
AAA to AA+	98	0.00% - 0.05%	1,150	705	182	2,037	232	0.04	30	11	2,000	239	0.04	30	12
AA to A-	95	0.05% - 0.13%	6,152	253	3,092	9,497	1,297	0.05	41	14	9,229	1,383	0.05	42	15
AA to A-	90	0.06% - 0.14%	5,416	980	7,407	13,803	1,682	0.08	33	12	16,575	2,772	0.08	33	17
BBB+ to BBB	87	0.09% - 0.22%	870	69	1,274	2,213	428	0.14	33	19	2,201	443	0.12	32	20
BBB+ to BBB	85	0.13% - 0.32%	1,547	39	1,727	3,313	861	0.23	36	26	3,716	878	0.22	35	24
BBB-	83	0.19% - 0.46%	735	78	1,250	2,063	634	0.29	34	31	2,361	731	0.29	34	31
Sovereign			90,110	732	5,088	95,930	2,604	0.03	13	3	108,885	2,509	0.03	11	2
<u>~_</u>	99	0.00% - 0.05%	62,241	178	3,151	65,570		_	11	-	81,508	· -	-	9	-
AAA to AA+	98	0.00% - 0.05%	2,944	9	467	3,420	192	0.04	14	6	3,436	204	0.04	15	6
AA to A-	95	0.05% - 0.13%	16,320	354	487	17,161	1,080	0.06	15	6	15,035	907	0.05	18	6
AA to A-	90	0.06% - 0.14%	5,227	30	895	6,152	524	0.12	20	9	2,887	193	0.10	16	7
BBB+ to BBB	87	0.09% - 0.22%	1,381	44	13	1,438	331	0.22	23	23	3,858	744	0.22	25	19
BBB+ to BBB	85	0.13% - 0.32%	911	98		1,009	141	0.32	13	14	957	139	0.32	13	15
BBB-	83	0.19% - 0.46%	1,086	19	75	1,180	336	0.46	24	28	1,204	322	0.46	24	27
Sub-Total			185,311	65,805	64,582	315,698	59,819	0.09	32	19	321,759	58,283	0.09	31	18
Non-Investment Grade															
Corporate			60.755	19.539	8,933	89.227	55,967	0.60	44	63	87.834	55.639	0.61	44	63
BB+	80	0.29% - 0.51%	24,986	11,058	3,072	39,116	22,319	0.35	46	57	39,482	22,064	0.35	45	56
BB	77	0.47% - 0.57%	17,329	4,464	1,966	23,759	14,136	0.49	43	59	21,486	13,262	0.49	43	62
BB-	75	0.57% - 0.75%	12,651	2,670	2,979	18,300	12,594	0.75	46	69	18,322	12,973	0.75	43	71
B+	73	0.75% - 1.44%	4,368	822	634	5,824	4,669	1.44	38	80	6,041	4,899	1.44	37	81
B to B-	70	1.44% - 2.77%	1,421	525	282	2,228	2,249	2.77	39	101	2,503	2,441	2.77	38	98
Bank_			1.973	99	230	2,302	1,078	0.59	36	47	2,163	1.023	0.59	36	47
BB+	80	0.29% - 0.51%	531	16	130	677	303	0.49	38	45	733	318	0.48	38	43
BB	77	0.47% - 0.57%	1,348	61	68	1,477	695	0.49	35	47	1,282	623	0.46	35	49
BB-	77 75	0.47% - 0.57%	1,346	18	17	1,477	695 47	0.57	36	47	1,262	48	0.57	36	49
B+	73	0.75% - 1.44%	7	- 10	14	21	13	1.44	33	60	22	13	1.44	32	60
B to B-	70	1.44% - 2.77%	22	4	1	27	20	2.77	33 34	76	27	21	2.77	34	77
Sovereign			4,009	34	76	4,119	1,067	1.24	16	26	4,258	1,206	1.24	16	28
BB+	80	0.29% - 0.51%	601	34	70	601	1,067	0.51	21	25	638	156	0.51	20	24
BB	77	0.47% - 0.57%	942	5	75	1,022	267	0.51	21	25	1,027	274	0.51	20	27
BB-	77 75	0.47% - 0.57%	494	28	75	1,022 522	267 86	0.57	11	26 16	1,027 541	102	0.57	11	19
B+	73	0.75% - 1.44%	1,241	20	1		426	1.44	15	34	1,288	536	1.44	18	42
B+ B to B-	73 70	0.75% - 1.44% 1.44% - 2.77%	1,241 731	1	-	1,242 732	426 137	2.77	15 8	34 19	764	138	2.77	7	18
Sub Total			66,737	19,672	9,239	95,648	E0 112	0.63	43	61	94,255	57,868	0.64	42	61
Sub-Total	l .		00,131	19,0/2	9,239	90,048	58,112	0.03	43	61	94,205	37,008	U.04	42	61

<sup>(1)</sup> The cross references of the Bank's internal borrower grades (IG) with equivalent rating categories utilized by external rating agencies are outlined on page 203 of the Bank's 2017 Annual Report.

<sup>(2)</sup> PD ranges overlap across IG codes as the Bank utilizes two risk rating systems for its AIRB portfolios and each risk rating system has its own separate IG to PD mapping.

<sup>(3)</sup> Amounts are before credit risk mitigation (excludes government guaranteed residential mortgages), and includes all non-retail exposures except securitization, equity and other assets.

<sup>(4)</sup> PD - Probability of Default, see glossary for details.

<sup>(5)</sup> LGD - Loss Given Default including certain conservative factors as per Basel accord, see glossary for details.

<sup>(6)</sup> RW - risk weight.

<sup>(7)</sup> Exposure at default (EAD) used as basis for estimated weightings, see glossary for details.



#### **NON-RETAIL AIRB PORTFOLIO - CREDIT QUALITY**

(\$MM)						Q3 20	18						Q2 2018		
Category external ratings <sup>(1)</sup>	Internal grades	PD bands <sup>(2)</sup>	Drawn Exposure at Default <sup>(3)</sup>	Undrawn Exposure at Default <sup>(3)</sup>	Other Exposure at Default <sup>(3)</sup>	Total Exposure at Default <sup>(3)</sup>	RWA	Weighted Average PD <sup>(4)(7)</sup>	Weighted Average LGD <sup>(5)(7)</sup>	Weighted Average RW <sup>(6)(7)</sup>	Total Exposure at Default <sup>(3)</sup>	RWA	Weighted Average PD <sup>(4)(7)</sup>	Weighted Average LGD <sup>(5)(7)</sup>	Weighted Average RW <sup>(6)(7)</sup>
			\$	\$	\$	\$	\$	%	%	%	\$	\$	%	%	%
Watch List (CCC+ to CC)															
Corporate	65 - 30	2.77% - 59.51%	2,156	376	298	2,830	5,250	19.75	40	185	3,116	6,089	21.09	42	196
Bank	65 - 30	2.77% - 59.51%	36	5	-	41	75	24.24	35	182	51	89	23.53	35	175
Sovereign	65 - 30	2.77% - 59.51%	569	-	-	569	361	38.12	15	63	509	328	19.44	13	64
Sub-Total			2,761	381	298	3,440	5,686	22.84	36	165	3,676	6,506	20.90	38	177
Default <sup>(8)</sup>															
Corporate	27-21	100%	1,024	333	114	1,471	4,646	100.00	43	316	1,444	4,295	100.00	42	297
Bank	27-21	100%	2	-	-	2	1	100.00	31	60	2	-	100.00	33	0
Sovereign	27-21	100%	-	-	-	-	1	100.00	25	313	-	-	-	-	-
Sub-Total			1,026	333	114	1,473	4,648	100.00	43	315	1,446	4,295	100.00	42	297
Total			255,835	86,191	74,233	416,259	128,265	0.76	35	31	421,136	126,952	0.74	33	30

<sup>(1)</sup> The cross references of the Bank's internal borrower grades (IG) with equivalent rating categories utilized by external rating agencies are outlined on page 203 of the Bank's 2017 Annual Report.

#### **NON-RETAIL AIRB PORTFOLIO - CREDIT COMMITMENTS**

		Ba	asel III	
(\$MM)	Q	3 2018	Q2	2018
Exposure Type <sup>(1)</sup>	Notional Undrawn	Weighted Average EAD	Notional Undrawn	Weighted Average EAD
	\$	%	\$	%
Corporate	152,399	53	151,866	52
Bank	4,050	57	4,141	58
Sovereign	1,226	57	1,233	57
Total	157,675	53	157,240	53

<sup>(1)</sup> Excludes unconditionally cancellable commitments.

<sup>(2)</sup> PD ranges overlap across IG codes as the Bank utilizes two risk rating systems for its AIRB portfolios and each risk rating system has its own separate IG to PD mapping.

<sup>(3)</sup> Amounts are before credit risk mitigation (excludes government guaranteed residential mortgages), and includes all non-retail exposures except securitization, equity and other assets.

<sup>(4)</sup> PD - Probability of Default, see glossary for details.

<sup>(5)</sup> LGD - Loss Given Default including certain conservative factors as per Basel accord, see glossary for details.

<sup>(6)</sup> RW - risk weight.

<sup>(7)</sup> Exposure at default (EAD) used as basis for estimated weightings, see glossary for details.

<sup>(8)</sup> EAD for defaulted exposures before related specific provisions (based on IFRS 9 as of Q1 2018, based on IAS 39 for prior periods) and write-offs.



#### RETAIL AIRB PORTFOLIO EXPOSURES - CREDIT QUALITY (1)

RETAIL AIRB PORTFOLIO EXPOSURES	- CREDII QUALII I									
(\$MM)						Q3 2018 Exposure				F1 . P
Category of PD Grades	PD Range	<b>EAD</b> <sup>(2)</sup>	Notional of undrawn commitments	Exposure weighted- average EAD <sup>(3)</sup>	Exposure weighted- average PD	weighted- average LGD <sup>(4)</sup>	Exposure weighted- average RW	RWA	EL	EL adjusted average risk weight <sup>(5)</sup>
		\$	\$	%	%	%	%	\$	\$	%
Residential Real Estate Secured <sup>(6)</sup>										
Insured Drawn and Undrawn <sup>(7)</sup>										
Exceptionally Low	0.01% to 0.04%	85,776	_	100.00	_	23.6	_	_	_	_
Very Low	0.05% to 0.19%	1,776	_	99.96	0.05	21.9	3	57	_	3
Low	0.20% to 0.19%	2,287		99.99	0.35	21.7	13	289	2	14
Medium Low	1.00% to 2.99%	2,207	_	33.33	0.00	21.7		203	-	
Medium	3.00% to 9.99%	_	_	_	_	_	-	_	_	_
High	10.00% to 19.99%	-	-	•	•	-	•	-	-	-
	20.00% to 19.99%	1	-	102.76	28.39	21.3	124	1	-	200
Extremely High		18	-				124	1	15	
Default Sub-total	100%	89,858	<del></del>	99.68 100.00	100.00	85.3 23.5	0.4	347	17	1,067 1
Sub-total Sub-total		09,030	-	100.00	0.03	23.5	0.4	341	17	
Uninsured Undrawn										
Exceptionally Low	0.00% to 0.04%	-	-	-	-	-	-	-	-	-
Very Low	0.05% to 0.19%	16,938	40,350	20.99	0.07	24	5	769	3	5
Low	0.20% to 0.99%	571	1,091	26.20	0.61	31	28	160	1	30
Medium Low	1.00% to 2.99%	126	221	28.59	2.00	35	69	87	1	77
Medium	3.00% to 9.99%	23	41	28.11	4.94	28	91	21	-	109
High	10.00% to 19.99%	11	14	38.93	13.64	28	144	15	-	192
Extremely High	20.00% to 99.99%	2	1	121.79	36.72	31	173	4	-	315
Default	100%	-	841	100.00	-	-		-	-	-
Sub-total		17,671	42,559	21.24	0.12	24	6	1,056	5	6
Uninsured Drawn Exceptionally Low	0.00% to 0.04%									
		F2 2FC	_	400.00	0.07	22	4	0.004	9	4
Very Low	0.05% to 0.19%	53,356	-	100.00	0.07			2,281	91	
Low	0.20% to 0.99%	73,743	-	100.00	0.53	23	18	13,143		19
Medium Low	1.00% to 2.99%	6,914	-	100.00	2.54	24	54	3,741	42	62
Medium	3.00% to 9.99%	983	-	100.00	6.44	24	87	851	15	105
High	10.00% to 19.99%	532	-	100.00	13.83	23	117	624	17	157
Extremely High	20.00% to 99.99%	455	-	100.00	36.08	21	113	515	34	206
Default	100%	241	-	100.00	100.00	71			171	888
Sub-total		136,224	-	100.00	0.84	23	16	21,155	379	19
Qualifying Revolving Retail Exposures (QRRE)										
Exceptionally Low	0.00% to 0.04%	11,514	17,611	31.76	0.05	74	2	263	4	3
Very Low	0.05% to 0.19%	9,287	12,220	36.48	0.17	67	6	596	11	8
Low	0.20% to 0.99%	11,993	9,330	50.58	0.54	77	17	2,065	48	22
Medium Low	1.00% to 2.99%	7,881	2,036	77.43	1.78	84	49	3,867	119	68
Medium	3.00% to 9.99%	3,673	269	93.74	6.45	86	121	4,455	204	191
High	10.00% to 19.99%	402	24	99.38	11.21	84	167	671	38	285
Extremely High	20.00% to 99.99%	835	20	101.08	34.84	81	212	1,773	232	560
Default	100%	157	5,395	100.00	100.00	90	-	-	141	1,122
Sub-total		45,742	46,905	52.59	2.09	76	30	13,690	797	52
Other Retail										
Exceptionally Low	0.00% to 0.04%	516	770	32.18	0.05	70	10	50	_	10
Very Low	0.05% to 0.19%	6,884	3	99.94	0.10	53	13	895	4	14
Low	0.20% to 0.99%	15,998	1,028	94.06	0.51	57	40	6,389	47	44
Medium Low	1.00% to 2.99%	5,108	15	99.67	1.70	66	81	4,152	58	95
Medium	3.00% to 9.99%	2,666	1	99.95	5.25	64	96	2,549	89	137
	10.00% to 19.99%	499		100.00	18.15	60	128	639	54	264
High	20.00% to 19.99%	337	-	100.00	44.12	60	156	525	89	487
Extremely High Default	100%	173	126	100.02	100.00	90	130	525	156	1,126
Sub-total	100%	32,181	1,943	95.89	2.26	59	47	15,199	497	1,126
		32,101	1,343	90.09	2.20	39	41	13,199	431	67
Total Retail	0.040/ / 0.017/						_			_
Exceptionally Low	0.01% to 0.04%	97,806	18,381	91.61	0.01	30	0	313	4	0
Very Low	0.05% to 0.19%	88,241	52,573	78.14	0.09	29	5	4,598	27	6
Low	0.20% to 0.99%	104,592	11,449	93.02	0.52	34	21	22,046	189	23
Medium Low	1.00% to 2.99%	20,029	2,272	90.58	2.02	59	59	11,847	220	73
Medium	3.00% to 9.99%	7,345	311	96.63	6.01	70	107	7,876	308	160
High	10.00% to 19.99%	1,444	38	99.37	14.59	53	135	1,949	109	230
Extremely High	20.00% to 99.99%	1,630	21	100.59	37.10	59	173	2,818	355	446
Default	100%	589	6,362	99.99	100.00	82	-	-	483	1,026
Total		321,676	91,407	88.52	0.90	34	16	51,447	1,695	23

<sup>(1)</sup> Represents retail exposures under the AIRB Approach which are domiciled in Canada.

<sup>(2)</sup> Amounts are before any allowances for credit losses and before credit risk mitigation.

<sup>(3)</sup> EAD rate represents the combined drawn and undrawn exposure for a facility.

<sup>(4)</sup> Effective November 1, 2016, new exposures secured by residential real estate located in Canada are subject to a downturn LGD (DLGD) floor equivalent to the sum of the segment's long-run default-weighted average LGD and an add-on. The Bank implemented the DLGD floor in Q1, 2017.

<sup>(5)</sup> EL adjusted average risk weight is calculated as (RWA + 12.5 X EL) / EAD.

<sup>(6)</sup> Includes Canadian residential mortgages and home equity lines of credit.

<sup>(7)</sup> The Bank uses the PD Substitution approach to reflect default insurance.



#### RETAIL AIRB PORTFOLIO EXPOSURES - CREDIT QUALITY (1)

(\$MM)						Q2 2018				
Category of PD Grades	PD Range	EAD <sup>(2)</sup>	Notional of undrawn commitments	Exposure weighted- average EAD <sup>(3)</sup>	Exposure weighted- average PD	Exposure weighted- average LGD <sup>(4)</sup>	Exposure weighted- average RW	RWA	EL	EL adjusted average risk weight <sup>(5)</sup>
		\$	\$	%	%	%	%	\$	\$	%
Residential Real Estate Secured <sup>(6)</sup>										
Insured Drawn and Undrawn <sup>(7)</sup>										
Exceptionally Low	0.01% to 0.04%	89,435	-	100.00	-	22.9	-	-	-	-
Very Low	0.05% to 0.19%	1,869	1	99.94	0.05	21.4	3.0	59	-	3
Low	0.20% to 0.99%	2,255	-	100.00	0.38	22.6	13.0	299	2	14
Medium Low	1.00% to 2.99%	1	-	95.37	2.00	31.1	61.0	-	-	69
Medium	3.00% to 9.99%	-	-	-	-	-	-	-	-	-
High	10.00% to 19.99%	-	-	-	-		· · · · ·	-	-	
Extremely High	20.00% to 99.99%	1	-	102.77	28.39	21.3	124.0	1	-	200
Default Sub-total	100%	17 93,578		100.00 100.00	100.00	85.7 22.9	0.4	359	15 17	1,071
		93,376	'	100.00	0.03	22.9	0.4	339	17	'
Uninsured Undrawn	0.000/ +0.0.040/									
Exceptionally Low Very Low	0.00% to 0.04% 0.05% to 0.19%	16,680	39,724	20.99	0.07	24	5	764	3	5
Low	0.20% to 0.19%	582	1,087	26.77	0.07	32	5 29	764 170	1	32
Medium Low	1.00% to 2.99%	111	1,067	28.59	2.00	35	68	75	1	76
Medium	3.00% to 9.99%	23	40	28.17	4.94	29	99	22		117
High	10.00% to 19.99%	11	15	34.74	13.64	28	144	15	_	192
Extremely High	20.00% to 99.99%	2	1	117.29	38.10	28	153	3	_	287
Default	100%	_	800	100.00	-		-	-	_	
Sub-total	10077	17,409	41,862	21.27	0.12	24	6	1,049	5	6
Uninsured Drawn Exceptionally Low	0.00% to 0.04%	_	_	_	_	_	_	_	_	_
Very Low	0.05% to 0.19%	52,806	_	100.00	0.07	21	4	2,232	9	4
Low	0.20% to 0.99%	69,228	_	100.00	0.52	22	17	11,821	81	19
Medium Low	1.00% to 2.99%	6,821	_	100.00	2.54	24	53	3,596	40	60
Medium	3.00% to 9.99%	950	_	100.00	6.51	23	83	792	14	101
High	10.00% to 19.99%	479	_	100.00	13.84	22	112	538	15	150
Extremely High	20.00% to 99.99%	435	-	100.00	36.00	20	109	473	31	198
Default	100%	227	-	100.00	100.00	71	-	-	162	893
Sub-total		130,946	-	100.00	0.83	22	15	19,452	352	18
Qualifying Revolving Retail Exposures (QRRE)										
Exceptionally Low	0.00% to 0.04%	11,466	17,536	31.72	0.05	73	2	261	4	3
Very Low	0.05% to 0.19%	9,043	12,043	36.20	0.17	67	6	577	11	8
Low	0.20% to 0.99%	11,721	9,004	50.92	0.54	76	17	1,996	46	22
Medium Low	1.00% to 2.99%	7,630	1,933	77.90	1.76	84	49	3,705	114	67
Medium	3.00% to 9.99%	3,474	246	93.97	6.41	86	121	4,188	191	189
High	10.00% to 19.99%	358	21	99.78	11.18	84	166	595	34	283
Extremely High	20.00% to 99.99%	705	16	101.11	35.65	80	210	1,478	200	564
Default Sub-total	100%	154 44,551	5,195 45,994	100.00 52.32	100.00	88 76	29	12,800	134 734	1,095 49
		44,551	45,994	52.52	1.99	76	29	12,000	734	49
Other Retail	0.000/ 4- 0.040/	500	770	20.42	0.05	70	40	F4		40
Exceptionally Low Very Low	0.00% to 0.04% 0.05% to 0.19%	529 6.971	779 3	32.43 99.95	0.05 0.10	70 53	10 13	51 907	4	10 14
Low	0.05% to 0.19% 0.20% to 0.99%	15,536	855	99.95	0.10	53 58	40	6,210	45	44
Medium Low	1.00% to 2.99%	4,831	12	94.89	1.70	66	81	3,930	45 55	95
Medium Medium	3.00% to 9.99%	2,458	12	99.72	5.24	64	96	2,349	82	137
High	10.00% to 19.99%	478		100.00	18.15	60	128	610	52	263
Extremely High	20.00% to 99.99%	307	-	99.68	43.96	60	157	480	81	486
Default	100%	182	124	100.00	100.00	89	-	-	162	1,117
Sub-total Sub-total		31,292	1,774	96.26	2.24	59	46	14,537	481	66
Total Retail										
Exceptionally Low	0.01% to 0.04%	101,430	18,315	91.93	0.01	29	0	312	4	0
Very Low	0.05% to 0.19%	87,369	51,771	78.31	0.09	29	5	4,539	27	6
Low	0.20% to 0.99%	99,322	10,946	92.98	0.52	34	21	20,496	175	23
Medium Low	1.00% to 2.99%	19,394	2,140	90.82	2.02	58	58	11,306	210	72
Medium	3.00% to 9.99%	6,905	287	96.72	6.00	69	106	7,351	287	158
High	10.00% to 19.99%	1,326	36	99.42	14.67	52	133	1,758	101	227
							400	0.405		407
Extremely High Default	20.00% to 99.99% 100%	1,450 580	17 6,119	100.50 100.00	37.51 100.00	58 82	168	2,435	312 473	437 1,022

<sup>(1)</sup> Represents retail exposures under the AIRB Approach which are domiciled in Canada.

<sup>(2)</sup> Amounts are before any allowances for credit losses and before credit risk mitigation.

<sup>(3)</sup> EAD rate represents combined drawn and undrawn exposure for a facility.

<sup>(4)</sup> Effective November 1, 2016, new exposures secured by residential real estate located in Canada are subject to a downturn LGD (DLGD) floor equivalent to the sum of the segment's long-run default-weighted average LGD and an add-on. The Bank implemented DLGD floor in Q1, 2017.

<sup>(5)</sup> EL adjusted average risk weight is calculated as (RWA + 12.5 X EL) / EAD.

<sup>(6)</sup> Includes Canadian residential mortgages and home equity lines of credit.

<sup>(7)</sup> The Bank uses the PD Substitution approach to reflect default insurance.



	Q3 20	18	Q2 20	18	Q1 20	18	Q4 20	17	Q3 20	17
Exposure Type	Actual Loss	Expected								
	Rate	Loss Rate								
	%	%	%	%	%	%	%	%	%	%
Non-Retail <sup>(1)</sup>										
Corporate	0.06	0.59	0.08	0.68	0.06	0.76	0.07	0.80	0.11	0.81
Sovereign	-	0.02	-	0.02	-	0.02	-	0.02	-	0.02
Bank	-	0.13	-	0.09	-	0.09	-	0.08	-	0.09
Retail <sup>(2)</sup>										
Real Estate Secured	0.01	0.12	0.01	0.12	0.01	0.12	0.01	0.12	0.01	0.11
QRRE	2.65	3.87	2.87	3.94	3.04	4.38	3.18	4.22	2.77	4.16
Other Retail	0.61	1.74	0.67	1.85	0.69	2.01	0.69	1.85	0.66	1.91

<sup>(1)</sup> Non-retail actual loss rates represent the credit losses net of recoveries for the current and prior three quarters divided by the 5-point average of outstanding loan balances for the same four-quarter period beginning 12 months ago. Expected loss rates represent the expected losses that were predicted at the beginning of the four-quarter period divided by outstanding loan balances at the beginning of the four-quarter period.

<sup>(2)</sup> Retail actual loss rates represent write-offs net of recoveries for the current and prior three quarters divided by the 5-point average of outstanding loan balances for the same four-quarter period beginning 12 months ago. Expected loss rates represent the expected losses that were predicted at the beginning of the four-quarter period divided by outstanding loan balances at the beginning of the four-quarter period.



			Q3	2018 <sup>(1)</sup>					Q2	2018 <sup>(1)</sup>		
	Average estimated PD	Actual default rate	Average estimated LGD	Actual LGD	Average estimated CCF <sup>(2)</sup>	Actual CCF <sup>(2)</sup>	Average estimated PD	Actual default rate	Average estimated LGD	Actual LGD	Average estimated CCF <sup>(2)</sup>	Actual CCF <sup>(2)</sup>
	%	%	%	%	%	%	%	%	%	%	%	%
Non-Retail	0.92	0.18	41.38	27.88	48.79	21.98	0.99	0.29	41.24	26.50	48.48	17.22

<sup>(1)</sup> Reporting is on a one quarter lag basis. For reporting as of Q3/18, estimated parameters are based on portfolio averages at Q2/17 whereas actual parameters are based on averages of realized parameters during the subsequent four quarters (Q3/17 – Q2/18).

<sup>(2)</sup> EAD back-testing is performed through Credit Conversion Factor (CCF) back-testing, as EAD is computed using the sum of the drawn exposure and undrawn exposure multiplied by the estimated CCF.

		Four	-quarter period	d ending Q3	2018 <sup>(1)</sup>			Four	r-quarter perio	d ending Q2 2	018 <sup>(1)</sup>	
	Average estimated PD <sup>(2)(7)</sup>	Actual default rate <sup>(2)(5)</sup>	Average estimated LGD <sup>(3)(7)</sup>	Actual LGD <sup>(3)(6)</sup>	Estimated EAD <sup>(4)(7)</sup>	Actual EAD <sup>(4)(5)</sup>	Average estimated PD <sup>(2)(7)</sup>	Actual default rate <sup>(2)(5)</sup>	Average estimated LGD <sup>(3)(7)</sup>	Actual LGD <sup>(3)(6)</sup>	Estimated EAD <sup>(4)(7)</sup>	actual EAD <sup>(4)(5)</sup>
(\$MM)	%	%	%	%	\$	\$	%	%	%	%	\$	\$
Residential real estate secured												
Residential mortgages												
Insured mortgages <sup>(8)</sup>	0.66	0.45	-	-	-	-	0.76	0.49	-	-	-	-
Uninsured mortgages	0.47	0.31	17.05	12.17	-	-	0.52	0.36	16.74	11.67	-	-
Secured lines of credit	0.40	0.27	29.24	16.28	89	81	0.43	0.28	29.50	15.21	94	85
Qualifying revolving retail exposures	2.01	1.65	79.73	69.26	669	582	2.15	1.73	79.55	67.68	704	617
Other retail	1.90	1.17	60.53	49.17	4	4	2.04	1.21	60.39	49.01	5	5

<sup>(1)</sup> Estimates and Actual Values are recalculated to align with new models implemented during the period.

<sup>(2)</sup> Account weighted aggregation.

<sup>(3)</sup> Default weighted aggregation.

<sup>(4)</sup> EAD is estimated for revolving products only.

<sup>(5)</sup> Actual based on accounts not at default as at four quarters prior to reporting date.

<sup>(6)</sup> Actual LGD calculated based on 24 month recovery period after default and therefore excludes any recoveries received after the 24 month period.

<sup>(7)</sup> Estimates are based on the four quarters prior to the reporting date.

<sup>(8)</sup> Actual and Estimated LGD for insured mortgages are not shown. Actual LGD includes the insurance benefit, whereas estimated LGD may not.

## **CREDIT RISK MITIGATION**



## EXPOSURE AT DEFAULT (1)

(\$MM)		Q3 2018			Q2 2018			Q1 2018			Q4 2017			Q3 2017	
	Financial Collateral	Guarantees / Derivativ		Financial Collateral	Guarantees / Derivativ		Financial Collateral	Guarantees / Derivativ		Financial Collateral	Guarantees Derivati		Financial Collateral	Guarantees / Derivativ	
Exposure type	Standardized Approach	Standardized Approach	AIRB Approach	Standardized Approach	Standardized Approach	AIRB Approach	Standardized Approach	Standardized Approach	AIRB Approach	Standardized Approach	Standardized Approach	AIRB Approach	Standardized Approach	Standardized Approach	AIRB Approach
Non-Retail															
Corporate	379	2,056	16,005	585	2,015	14,886	633	2,010	16,304	635	1,974	16,341	628	1,866	15,745
Bank	-	-	8,627	-	-	8,742	-	-	9,046	-	-	9,273	-	-	8,436
Sovereign	-	67	2,338	-	67	2,774	-	69	3,899	-	73	6,109	2	76	6,288
Total Non-Retail	379	2,123	26,970	585	2,082	26,402	633	2,079	29,249	635	2,047	31,723	630	1,942	30,469
Retail  Residential Mortgages (2)  Secured Lines of Credit  Qualifying Revolving Retail Exposures (QRRE)	-	5,445	85,776	6	4,657	89,435	4	4,281	91,857	4	4,243	93,095	-	3,746	96,794
Other Retail	254	1,219	-	526	1,079	-	362	1,074	-	373	1,104	-	547	1,199	-
Total Retail	254	6,664	85,776	532	5,736	89,435	366	5,355	91,857	377	5,347	93,095	547	4,945	96,794
Total	633	8,787	112,746	1,117	7,818	115,837	999	7,434	121,106	1,012	7,394	124,818	1,177	6,887	127,263

<sup>(1)</sup> Includes drawn, undrawn and other off-balance sheet exposures (e.g., letters of credit and letters of guarantee) covered by eligible collateral and guarantees.

<sup>(2)</sup> Primarily includes insured drawn Canadian residential mortgages (e.g. CMHC insured mortgages).



(\$MM)		Q3 2018	3			Q2 20	18			Q1 201	В			Q4 2	2017	
Contract Types	Notional Amount	Credit Risk Amount	Credit Risk Equivalent Amount	Risk-weighted Amount <sup>(3)</sup>	Notional Amount	Credit Risk Amount	Credit Risk Equivalent Amount	Risk-weighted Amount <sup>(3)</sup>	Notional Amount	Credit Risk Amount	Credit Risk Equivalent Amount	Risk-weighted Amount <sup>(3)</sup>	Notional Amount	Credit Risk Amount	Credit Risk Equivalent Amount	Risk-weighted Amount <sup>(3)</sup>
Interest Rate Contracts:																
Futures and Forward Rate Agreements	437,173	40	247	89	522,515	72	295	80	475,328	9	204	40	491,651	20	95	20
Swaps	3,503,927	1,024	5,678	1,919	3,605,918	253	4,870	1,142	3,106,659	561	4,560	854	2,803,343	250	5,459	1,341
Options Purchased	41,843	12	90	46	44,468	3	1,122	351	44,681	1	89	41	39,664	5	105	57
Options Written	37,075	-	1	-	35,392	-	3	1	39,851	-	1	-	40,993	-	15	3
Total	4,020,018	1,076	6,016	2,054	4,208,293	328	6,290	1,574	3,666,519	571	4,854	935	3,375,651	275	5,674	1,421
Foreign Exchange Contracts:																
Futures and Forwards	516,792	1,904	4,128	1,625	497,076	1,419	4,900	1,665	540,034	2,889	5,423	1,569	481,187	2,370	6,367	1,765
Swaps	392,657	5,263	5,828	1,915	379,532	3,668	5,950	1,982	379,457	3,674	6,404	1,980	386,010	4,023	7,308	1,899
Options Purchased	50,450	620	247	73	40,694	482	614	190	34,873	458	407	121	39,116	523	515	113
Options Written	48,963	-	19	5	39,683	-	98	29	35,032	-	46	7	40,028	-	83	12
Total	1,008,862	7,787	10,222	3,618	956,985	5,569	11,562	3,866	989,396	7,021	12,280	3,677	946,341	6,916	14,273	3,789
Other Derivatives Contracts:																
Equity	118,693	78	4,796	1,468	112,499	13	5,307	1,670	108,887	5	4,674	1,425	101,390	45	5,123	1,575
Credit	31,283	55	351	104	33,586	46	950	164	34,372	1	1,295	182	37,591	12	1,421	174
Other	97,325	1,256	7,695	899	110,229	1,555	8,240	1,033	113,275	856	8,770	1,082	87,415	9	10,953	807
Total	247,301	1,389	12,842	2,471	256,314	1,614	14,497	2,867	256,534	862	14,739	2,689	226,396	66	17,497	2,556
Credit Valuation Adjustment <sup>(2)(3)</sup>				4,755				3,757				2,760				2,988
Total Derivatives after Netting and Collateral	5,276,181	10,252	29,080	12,898	5,421,592	7,511	32,349	12,064	4,912,449	8,454	31,873	10,061	4,548,388	7,257	37,444	10,754

	Q3 2017		Q2 2017		Q1 2017		Q4 2016	
Contract Types	Notional Amount	Risk-weighted Amount <sup>(3)</sup>						
Interest Rate Contracts:								
Futures and Forward Rate Agreements	415,898	14	476,404	14	422,104	17	422,104	17
Swaps	2,640,075	1,350	2,343,203	1,626	2,294,534	2,125	2,294,534	2,125
Options Purchased	51,756	49	40,690	77	50,830	52	50,830	52
Options Written	51,034	36	43,454	3	40,147	-	40,147	-
Total	3,158,763	1,449	2,903,751	1,720	2,807,615	2,194	2,807,615	2,194
Foreign Exchange Contracts:								
Futures and Forwards	436,986	1,493	461,815	1,375	485,153	1,342	485,153	1,342
Swaps	363,821	2,015	377,982	1,881	354,604	1,594	354,604	1,594
Options Purchased	29,540	152	26,363	226	16,616	129	16,616	129
Options Written	30,850	10	26,732	38	16,245	19	16,245	19
Total	861,197	3,670	892,892	3,520	872,618	3,084	872,618	3,084
Other Derivatives Contracts:								
Equity	91,683	1,470	100,502	1,740	87,908	1,677	87,908	1,677
Credit	37,431	217	42,705	196	49,058	340	49,058	340
Other	95,161	683	118,764	905	78,753	645	78,753	645
Total	224,275	2,370	261,971	2,841	215,719	2,662	215,719	2,662
Total Derivatives	4,244,235	7,489	4,058,614	8,081	3,895,952	7,940	3,895,952	7,940
Credit Valuation Adjustment <sup>(2)(3)</sup>		3,733		3,923		4,165		4,165
Risk-weighted Amount		11,222		12,004		12,105		12,105

<sup>(1)</sup> The impact of Master Netting Agreements and Collateral has been incorporated within the various contracts. As a result, risk-weighted amounts are reported net of impact of collateral and master netting arrangements.

<sup>(2)</sup> As per OSFI guideline, Credit Valuation Adjustment RWA on derivatives was phased-in in 2014. Effective Q1, 2018 the CVA risk-weighted assets have been calculated using scalars of 0.80, 0.83 and 0.86 to compute the CET1 capital ratio, Tier 1 capital ratio and Total capital ratio, respectively.

<sup>(3)</sup> The bank implemented the Internal Modelling Method for determination of Counterparty Credit Risk and Credit Valuation Adjustment RWA in Q2 2016.



(\$MM)				Q3 2	018			Q	2 2018			Q1 :	2018			Q4	2017	
	External		Exp	osure at Defaul	t <sup>(2)</sup>	Risk-	Exp	osure at Defau	ılt <sup>(2)</sup>	Risk-	Exp	osure at Defau	lt <sup>(2)</sup>	Risk-	Exp	osure at Defau	ılt <sup>(2)</sup>	Risk-
Risk Category	Rating (S&P)	Risk-Weight %	On- Balance Sheet	Off- Balance Sheet	Total	Weighted Assets	On- Balance Sheet	Off- Balance Sheet	Total	Weighted Assets	On- Balance Sheet	Off- Balance Sheet	Total	Weighted Assets	On- Balance Sheet	Off- Balance Sheet	Total	Weighted Assets
Securitization																		
Investment Grade	AAA to A	7 - 25	9,342	13,907	23,249	1,968	9,265	14,308	23,573	1,982	8,709	14,069	22,778	2,006	8,850	14,184	23,034	2,097
investment Grade	A- to BBB- (3)	35 - 100	93	142	235	126	194	342	536	278	130	338	468	227	135	336	471	230
Non-Investment Grade	BB+ to BB- Below BB-	150 - 650 1250	11 -	-	11	47	11	2	13	54 -	11	1	12	52	12	1 -	13	54
			9,446	14,049	23,495	2,141	9,470	14,652	24,122	2,314	8,850	14,408	23,258	2,285	8,997	14,521	23,518	2,381
Resecuritization																		
Investment Grade	AAA to A	20 - 65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
investment orace	A- to BBB-	100 - 350	72	-	72 -	145	72	2	74 -	147	69	1	70 -	141	73	-	73 -	148
	BB+ to BB-	500 - 850	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Investment Grade	Below BB-	1250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			72	-	72	145	72	2	74	147	69	1	70	141	73	-	73	148
Total			9,518	14,049	23,567	2,286	9,542	14,654	24,196	2,461	8,919	14,409	23,328	2,426	9,070	14,521	23,591	2,529

(\$MM)		Q3	2018			Q	2 2018			Q1 2	2018			Q4	2017	
	Exp	osure at Defau	ılt <sup>(2)</sup>		Exp	osure at Defa	ult <sup>(2)</sup>		Exp	osure at Defau	lt <sup>(2)</sup>		Exp	osure at Defau	ılt <sup>(2)</sup>	
Underlying Asset	On- Balance Sheet	Off- Balance Sheet	Total	Exposures at Default (RW=1250%)	On- Balance Sheet	Off- Balance Sheet	Total	Exposures at Default (RW=1250%)	On- Balance Sheet	Off- Balance Sheet	Total	Exposures at Default (RW=1250%)	On- Balance Sheet	Off- Balance Sheet	Total	Exposures at Default (RW=1250%)
Residential Mortgages	2	670	672	_	3	1,608	1.611	_	4	1,608	1.612	_	5	1,608	1,613	_
Commercial Mortgages	_	-		_	-	1,000		_	-	1,000	1,012		-	1,000	1,013	-
Credit cards/Consumer receivables	1,217	2,844	4,061	-	1,020	3,114	4,134	-	695	2,653	3,348	-	724	2,652	3,376	-
Auto loans/Leases	3,982	6,743	10,725	-	4,652	6,027	10,679	-	4,252	6,892	11,144	-	4,032	6,907	10,939	-
Diversified asset-backed securities	107	140	247	-	107	12	119	-	107	8	115	-	115	5	120	-
Business Loans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trade receivables	3,229	3,631	6,860	-	3,285	3,380	6,665	-	3,486	3,241	6,727	-	3,681	3,339	7,020	-
Other	981	21	1,002	-	475	513	988	-	374	7	381	-	513	10	523	-
Total	9,518	14,049	23,567	-	9,542	14,654	24,196	-	8,918	14,409	23,327		9,070	14,521	23,591	-

<sup>(1)</sup> Capital charges related to trading book securitization exposures are based upon the Bank's internal market risk models including its comprehensive risk measure.

<sup>(2)</sup> Includes banking book on-balance sheet investments in asset backed securities (ABS), collateralized loan obligations (CLOs), collateralized debt obligations (CDOs), and off-balance sheet liquidity lines and credit enhancements to Bank sponsored and non-bank sponsored ABCP conduits.

<sup>(3)</sup> Included in on-balance sheet exposures are investment grade subordinated notes retained by the Bank, issued by Trillium Credit Card Trust II, and backed by bank originated credit card receivables. OSFI's Securitization Framework is applied.

## RISK-WEIGHTED ASSETS FOR SECURITIZATION EXPOSURES - BANKING BOOK (1) (CONTINUED)



(\$MM)				Q3 2	017			Q2 2	017			Q1 2	017			Q4 2	2016	
Risk Category	External Rating (S&P)	Risk-Weight %	On- Balance Sheet	osure at Defau Off- Balance Sheet	lt <sup>(2)</sup> Total	Risk- Weighted Assets	On- Balance Sheet	osure at Defau Off- Balance Sheet	It <sup>(2)</sup> Total	Risk- Weighted Assets	On- Balance Sheet	osure at Defau Off- Balance Sheet	lt <sup>(2)</sup> Total	Risk- Weighted Assets	On- Balance Sheet	osure at Defau Off- Balance Sheet	ılt <sup>(2)</sup> Total	Risk- Weighted Assets
Securitization			Sneet	Sneet			Sneet	Sneet			Sneet	Sneet			Sneet	Sneet		
· ·	AAA to A	7 - 25	10,157	12,567	22,724	2,070	10,423	14,132	24,555	2,225	9,999	13,363	23,362	2,074	10,176	14,602	24,778	2,081
Investment Grade	A- to BBB- (3)	35 - 100	130	335	465	223	134	4	138	114	142	4	146	117	136	12	148	119
Non-Investment Grade	BB+ to BB- Below BB-	150 - 650 1250	18 -	1 -	19 -	95 -	13 -	- -	13 -	57 -	-	- -	-	- -	-	- -	-	-
Resecuritization			10,305	12,903	23,208	2,388	10,570	14,136	24,706	2,396	10,141	13,367	23,508	2,191	10,312	14,614	24,926	2,200
Investment Grade	AAA to A A- to BBB-	20 - 65 100 - 350	70	-	- 70	- 141	62	2	- 64	- 128	- 61	-	- 61	122	- 79	-	- 79	- 158
Non-Investment Grade	BB+ to BB- Below BB-	500 - 850 1250	-	-	-	-	- 15	-	- - 15	- 193	- 20	-	- - 20	- 248	- 20	-	- - 20	- 255
			70	-	70	141	77	2	79	321	81	-	81	370	99	-	99	413
Total			10,375	12,903	23,278	2,529	10,647	14,138	24,785	2,717	10,222	13,367	23,589	2,561	10,411	14,614	25,025	2,613

(\$MM)	Q3 2017				Q2 2017				Q1 2017				Q4 2016			
	Exposure at Default <sup>(2)</sup> On- Off- Expos			Exposure at Default <sup>(2)</sup> On- Off-		_	Exposure at Default (2) On- Off-		Exposures	Exposure at Default (2) On- Off-		Exposures				
Underlying Asset	On- Balance Sheet	Balance Sheet	Total	Exposures at Default (RW=1250%)	On- Balance Sheet	Balance Sheet	Total	Exposures at Default (RW=1250%)	On- Balance Sheet	Balance Sheet	Total	at Default (RW=1250%)	On- Balance Sheet	Balance Sheet	Total	at Default (RW=1250%)
Decidential Mentages		4.000	4.644			4.075	4 075		400	4.075	4 740		540	4.075	4 705	
Residential Mortgages	б	1,608	1,614	-	-	1,275	1,275	-	468	1,275	1,743	-	510	1,275	1,785	-
Commercial Mortgages	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Credit cards/Consumer receivables	642	2,665	3,307	-	703	2,720	3,423	-	614	2,213	2,827	-	623	2,304	2,927	-
Auto loans/Leases	5,107	5,915	11,022	-	5,461	6,355	11,816	-	4,180	6,440	10,620	-	4,295	6,889	11,184	-
Diversified asset-backed securities	189	2	191	-	125	38	163	15	54	61	115	20	136	34	170	20
Business Loans	-	-	-	-	-	-	-	-	-	12	12	-	-	22	22	-
Trade receivables	3,935	2,703	6,638	-	3,604	3,714	7,318	-	4,176	3,342	7,518	-	3,963	4,070	8,033	-
Other	496	10	506	-	754	36	790	-	730	24	754	-	884	20	904	-
Total	10,375	12,903	23,278	-	10,647	14,138	24,785	15	10,222	13,367	23,589	20	10,411	14,614	25,025	20

<sup>(1)</sup> Capital charges related to trading book securitization exposures are based upon the Bank's internal market risk models including its comprehensive risk measure.

<sup>(2)</sup> Includes banking book on-balance sheet investments in asset backed securities (ABS), collateralized loan obligations (CLOs), collateralized debt obligations (CDOs), and off-balance sheet liquidity lines and credit enhancements to bank sponsored and non-bank sponsored ABCP conduits.

<sup>(3)</sup> Included in on-balance sheet exposures are investment grade subordinated notes retained by the Bank, issued by Trillium Credit Card Trust II, and backed by bank originated credit card receivables. OSFI's Securitization Framework is applied.

## TOTAL MARKET RISK-WEIGHTED ASSETS



(\$MM)	Q3 2018	Q2 2018	Q1 2018	Q4 2017	Q3 2017
All Bank VaR	1,667	1,814	1,646	1,380	1,398
All Bank stressed VaR	5,620	4,882	5,080	3,745	3,368
Incremental risk charge	5,648	1,672	2,500	2,181	3,383
Comprehensive risk measure <sup>(1)</sup>	-	-	-	-	264
Standardized approach	3,467	468	679	533	491
Market risk-weighted assets as at end of Quarter	16,402	8,836	9,905	7,839	8,904

<sup>(1)</sup> Comprehensive risk measure charges are no longer applicable as of Q4 2017.

## SUMMARY COMPARISON OF ACCOUNTING BASIS vs LEVERAGE RATIO EXPOSURE MEASURE - for D-SIBs



(\$MM)	Item	Q3 2018	Q2 2018
1	Total consolidated assets as per published financial statements	946,703	926,310
2	Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	(656)	(1,162)
3	Adjustment for fiduciary assets recognized on the balance sheet pursuant to the operative accounting framework but excluded from the leverage ratio exposure measure	-	-
4	Adjustments for derivative financial instruments	(143)	4,062
5	Adjustment for securities financing transactions (i.e., repo assets and similar secured lending)	8,391	11,811
6	Adjustment for off balance-sheet items (i.e., credit equivalent amounts of off-balance sheet exposures)	132,839	132,413
7	Other adjustments	(15,159)	(12,786)
8	Leverage Ratio Exposure	1,071,975	1,060,648

## LEVERAGE RATIO FRAMEWORK



(\$MM)	Item	Q3 2018	Q2 2018
	On-balance sheet exposures (1)		
1	On-balance sheet items (excluding derivatives, SFTs and grandfathered securitization exposures but including collateral)	826,457	807,025
2	(Asset amounts deducted in determining Basel III Tier 1 capital)	(15,159)	(12,786)
3	Total on-balance sheet exposures (excluding derivatives and SFTs) (sum of lines 1 and 2)	811,298	794,239
	Derivative exposures		
4	Replacement cost associated with all derivative transactions (i.e. net of eligible cash variation margin)	8,014	4,798
5	Add-on amounts for PFE associated with all derivative transactions	28,742	33,904
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)	(4,264)	(3,429)
8	(Exempted CCP-leg of client cleared trade exposures)	-	-
9	Adjusted effective notional amount of written credit derivatives	6,811	7,939
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	(4,455)	(5,201)
11	Total derivative exposures (sum of lines 4 to 10)	34,848	38,011
	Securities financing transaction exposures		
12	Gross SFT assets recognized for accounting purposes (with no recognition of netting), after adjusting for sale accounting transactions	96,720	99,187
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	(12,121)	(15,013)
14	Counterparty credit risk (CCR) exposure for SFT assets	8,391	11,811
15	Agent transaction exposures	-	-
16	Total securities financing transaction exposures (sum of lines 12 to 15)	92,990	95,985
	Other off-balance sheet exposures		
17	Off-balance sheet exposure at gross notional amount	421,335	413,186
18	(Adjustments for conversion to credit equivalent amounts)	(288,496)	(280,773)
19	Off-balance sheet items (sum of lines 17 and 18)	132,839	132,413
	Capital and Total Exposures		
20	Tier 1 capital	52,540	50,708
21	Total Exposures (sum of lines 3, 11, 16 and 19)	1,071,975	1,060,648
	Leverage Ratios		
22	Basel III leverage ratio	4.9%	4.8%

<sup>(1)</sup> On-balance sheet items excludes securities purchased under resale agreements and securities borrowed (\$84,599), derivative financial instruments (\$34,991), assets outside the regulatory scope of consolidation (\$656).

## LEVERAGE RATIO FRAMEWORK - DESCRIPTION OF LINE ITEMS



Row Number	Explanation
1	On-balance sheet assets (excluding derivatives, Securities Financing Transactions (SFTs) and grandfathered securitization exposures but including collateral) according to paragraphs 14 and 17 to 20 of the Leverage Requirements Guideline.
2	Deductions from Basel III Tier 1 capital determined by paragraphs 4, 15 and 16 of the Leverage Requirements Guideline and excluded from the leverage ratio exposure measure, reported as negative amounts.
3	Sum of lines 1 and 2.
4	Replacement cost (RC) associated with all derivative transactions (including exposure resulting from transactions described in paragraph 42 of the Leverage Requirements Guideline), net of cash variation margin received and with, where applicable, bilateral netting according to paragraphs 22 to 35 and 40 of the Leverage Requirements Guideline.
5	Add-on amount for all derivatives exposure according to paragraphs 22 to 35 of the Leverage Requirements Guideline.
6	Grossed-up amount for collateral provided according to paragraph 38 of the Leverage Requirements Guideline.
7	Deductions of receivables assets from cash variation margin provided in derivative transactions according to paragraph 40 of the Leverage Requirements Guideline, reported as negative amounts.
8	Exempted trade exposures associated with the CCP-leg of derivative transactions resulting from client cleared transactions according to paragraph 41 of the Leverage Requirements Guideline, reported as negative amounts.
9	Adjusted effective notional amount (i.e. the effective notional amount reduced by any negative change in fair value) for written credit derivatives according to paragraphs 45 to 47 of the Leverage Requirements Guideline.
10	Adjusted effective notional offsets of written credit derivatives according to paragraphs 45 to 47 of the Leverage Requirements Guideline and deducted add-on amounts relating to written credit derivatives according to paragraph 48 of the Leverage Requirements Guideline, reported as negative amounts.
11	Sum of lines 4 to 10.
12	Gross SFT assets recognized for accounting purposes with no recognition of any netting other than novation with QCCPs as set out in footnote 30 of the Leverage Requirements Guideline, removing certain securities received as determined by paragraph 50 (i) of the Leverage Requirements Guideline and adjusting for any sales accounting transactions as determined by paragraph 53 of the Leverage Requirements Guideline.
13	Cash payables and cash receivables of Gross SFT assets netted according to paragraph 50 (i) of the Leverage Requirements Guideline, reported as negative amounts.
14	Measure of counterparty credit risk for SFTs as determined by paragraph 50 (ii) of the Leverage Requirements Guideline.
15	Agent transaction exposure amount determined according to paragraphs 54 to 56 of the Leverage Requirements Guideline.
16	Sum of lines 12 to 15.
17	Total off-balance sheet exposure amounts on a gross notional basis, before any adjustment for credit conversion factors according to paragraphs 57 to 65 of the Leverage Requirements Guideline.
18	Reduction in gross amount of off-balance sheet exposures due to the application of credit conversion factors in paragraphs 57 to 65 of the Leverage Requirements Guideline.
19	Sum of lines 17 and 18.
20	Tier 1 capital as determined by paragraph 10 of the Leverage Requirements Guideline.
21	Sum of lines 3, 11, 16 and 19.
22	Basel III leverage ratio according to paragraph 5 of the Leverage Requirements Guideline. (Line 20/21)
23	Tier 1 capital measured on an all-in basis as specified in Chapter 2 of OSFI's Capital Adequacy Requirements Guideline.
24	Regulatory adjustments to Tier 1 capital measured on an all-in basis as specified in Chapter 2 of OSFI's Capital Adequacy Requirements Guideline, reported as negative amounts.
25	Sum of lines 21 and 24, less the amount reported in line 2.
26	Leverage ratio measured on all-in basis; the ratio of the Tier 1 capital amount reported in line 23 to the Total Exposure amount reported in line 25.



Credit Risk Parameters	
Exposure at Default (EAD)	Congrally represents the expected gross expectation at default and includes outstanding amounts for an holonous sheet expectation and lean activistant expectation.
Exposure at Default (EAD)	Generally represents the expected gross exposures at default and includes outstanding amounts for on-balance sheet exposures and loan equivalent amounts for off-balance sheet exposures.
Probability of Default (PD)	Measures the likelihood that a borrower will default within a 1-year time horizon, expressed as a percentage.
Loss Given Default (LGD)	Measures the severity of loss on a facility in the event of a borrower's default, expressed as a percentage of exposure at default.
Exposure Types	
Non-retail	
Corporate	Debt obligation of a corporation, partnership, or proprietorship.
Bank	Debt obligation of a bank or bank equivalent (including certain public sector entities (PSEs) treated as Bank equivalent exposures).
Sovereign	Debt obligation of a sovereign, central bank, certain Multi Development Banks (MDBs) and certain PSEs treated as Sovereign.
Securitization	On-balance sheet investments in asset backed securities (ABS), mortgage backed securities (MBS), collateralized loan obligations (CLOs) and collateralized debt obligations (CDOs). Off-balance sheet liquidity lines including credit enhancements to Bank's sponsored ABCP conduits and liquidity lines to non-bank sponsored ABCP conduits.
Retail	
Real Estate Secured	
Residential Mortgages	Loans to individuals against residential property (four units or less).
Secured Lines Of Credit	Revolving personal lines of credit secured by first charge on residential real estate.
Qualifying Revolving Retail Exposures (QRRE)	Credit cards and unsecured line of credit for individuals.
Other Retail	All other personal loans.
Exposure Sub-types	
Drawn	Outstanding amounts for loans, leases, acceptances, deposits with banks and available-for-sale debt securities.
Undrawn	Unutilized portion of an authorized credit line.
Repo-Style Transactions	Reverse repurchase agreements (reverse repos) and repurchase agreements (repos), securities lending and borrowing.
Over-the-counter (OTC) Derivatives	Over-the-counter derivatives contracts.
Exchange-traded derivatives (ETD)	Derivative contracts (e.g. futures contracts and options) that are transacted on an organized futures exchange. These include Futures contracts (both Long and Short positions), Purchased Options and Written Options.
Other Off-Balance Sheet	Direct credit substitutes such as standby letters of credits and guarantees, trade letters of credits, and performance letters of credits and guarantees.
Qualifying central counterparty (QCCP)	A qualifying central counterparty (QCCP) is licensed as a central counterparty and is also considered as "qualifying" when it is compliant with CPSS-IOSCO standards and is able to assist clearing member banks in properly capitalizing for CCP exposures by either undertaking the calculations and/or making available sufficient information to its clearing members, or others, to enable the completion of capital calculations.
Non-qualifying central counterparties (NQCCP)	Defined as those central counterparties which are not compliant with CPSS-IOSCO standards as outlined under qualifying CCP's. The exposures to NQCCP will follow standardized treatment under the Basel accord.
Other	
Asset Value Correlation Multiplier (AVC)	Basel III has increased the risk-weights on exposures to certain Financial Institutions (FIs) relative to the non-financial corporate sector by introducing an Asset Value Correlation multiplier (AVC). The correlation factor in the risk-weight formula is multiplied by this AVC factor of 1.25 for all exposures to regulated FIs whose total assets are greater than or equal to US \$100 billion and all exposures to unregulated FIs.
Regulatory Capital Floor	A minimum capital floor requirement is prescribed for institutions that use the AIRB approach for credit risk. Up to and including Q1 2018, the capital floor add-on was determined by comparing a capital requirement calculated by reference to Basel I against the Basel III calculation, as prescribed by OSFI. A shortfall in the Basel III capit requirement compared with the Basel I capital floor was added to RWAs. Effective Q2 2018, OSFI has replaced the Basel I regulatory capital floor with a capital floor based on the Basel II standardized approach for credit risk. Revised capital floor requirements also include risk-weighted assets for market risk and CVA.
Specific Wrong-Way Risk (WWR)	Specific Wrong-Way Risk arises when the exposure to a particular counterparty is positively correlated with the probability of default of the counterparty due to the nature of the transactions with the counterparty.
Credit Valuation Adjustment (CVA)	Credit Valuation Adjustment (CVA) is the difference between the risk free value of a portfolio and the true value of that portfolio, accounting for the possible default of a counterparty. CVA adjustment aims to identify the impact of Counterparty Risk.
Advanced Measurement Approaches (AMA)	Under the AMA, the regulatory capital requirement for Operational Risk will equal the risk measure generated by the bank's internal operational risk measurement system using the quantitative and qualitative criteria. AMA utilizes risk drivers for capital movements (such as internal loss experience, business environment and internal control factors, external loss experience, and scenarios).