



**Royal Bank of Canada**

**Pillar 3 Report**

**As at January 31, 2021**



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## Caution regarding forward-looking statements

From time to time, we make written or oral forward-looking statements within the meaning of certain securities laws, including the “safe harbour” provisions of the *United States Private Securities Litigation Reform Act of 1995* and any applicable Canadian securities legislation. We may make forward-looking statements in this Pillar 3 Report, our 2020 Annual Report, in other filings with Canadian regulators or the SEC, in other reports to shareholders including our Q1 2021 Report to Shareholders, and in other communications. Forward-looking statements are typically identified by words such as “believe”, “expect”, “foresee”, “forecast”, “anticipate”, “intend”, “estimate”, “goal”, “plan” and “project” and similar expressions of future or conditional verbs such as “will”, “may”, “should”, “could” or “would”. By their very nature, forward-looking statements require us to make assumptions and are subject to inherent risks and uncertainties, which give rise to the possibility that our predictions, forecasts, projections, expectations or conclusions will not prove to be accurate, that our assumptions may not be correct and that our financial performance and management objectives, vision and strategic goals will not be achieved. We caution readers not to place undue reliance on these statements as a number of risk factors could cause our actual results to differ materially from the expectations expressed in such forward-looking statements. Additional information about certain risk factors can be found in the Caution regarding forward-looking statements and risk sections of our 2020 Annual Report and the Risk management and Impact of COVID-19 pandemic sections of our Q1 2021 Report to Shareholders. When relying on our forward-looking statements to make decisions with respect to us, investors and others should carefully consider these risk factors as well as other uncertainties and potential events. Except as required by law, we do not undertake to update any forward-looking statement, whether written or oral, that may be made from time to time by us or on our behalf.

## About Royal Bank of Canada

Royal Bank of Canada is a global financial institution with a purpose-driven, principles-led approach to delivering leading performance. Our success comes from the 86,000+ employees who leverage their imaginations and insights to bring our vision, values and strategy to life so we can help our clients thrive and communities prosper. As Canada’s biggest bank, and one of the largest in the world based on market capitalization, we have a diversified business model with a focus on innovation and providing exceptional experiences to more than 17 million clients in Canada, the U.S. and 34 other countries. Learn more at [rbc.com](http://rbc.com).

Our business segments include Personal & Commercial Banking, Wealth Management, Insurance, Investor & Treasury Services, and Capital Markets. Our business segments are supported by Corporate Support, which consists of Technology & Operations and Functions. Technology & Operations provides the technological and operational foundation required to effectively deliver products and services to our clients, while Functions includes our finance, human resources, risk management, internal audit and other functional groups, as well as our corporate treasury function.

## Capital framework

Our consolidated regulatory capital requirements are determined by guidelines issued by the Office of the Superintendent of the Financial Institutions (OSFI), which are based on the Basel III framework adopted by the Basel Committee on Banking Supervision (BCBS).

The Basel III framework integrates three “Pillars” to establish a robust foundation for banking supervision and financial stability:

- Pillar 1 prescribes minimum capital requirements and addresses capital adequacy, including standards for calculating risk-weighted assets (RWA);
- Pillar 2 requires the establishment of internal assessment processes and supervisory review to evaluate the risk profile and capital adequacy of banks;
- Pillar 3 enhances the consistency and comparability of risk and capital profiles between banks and across jurisdictions for market participants through meaningful disclosures.

Under Basel III, banks use defined approaches to calculate their minimum regulatory capital required to support various risks and exposure types including credit risk, counterparty credit risk, market risk, operational risk, and securitizations exposures. Refer to the “Capital management” section of our 2020 Annual Report for further information on calculation approaches. Refer to the following sections in this report for further information on:

- Capital
- Credit Risk
- Counterparty Credit Risk
- Market Risk
- Operational Risk
- Securitization Exposures

### Capital framework (continued)

In January 2015, the BCBS published the “*Revised Pillar 3 Disclosure Requirements*” (Revised Standards) to encourage market discipline through regulatory disclosure requirements. The Revised Standards require comprehensive disclosure of our risks and regulatory capital including our methodologies used in calculating capital requirements instituted under Pillar 1. Existing requirements in the areas of credit risk, counterparty credit risk and securitization activities were replaced by the Revised Standards. OSFI mandated the domestic implementation of the first phase of the Revised Standards for Canadian domestic systemically important banks (D-SIBs) for the reporting period ending October 31, 2018. This Pillar 3 report provides disclosures reflective of this first phase of the Revised Standards.

In March 2017, the BCBS issued its second phase of the Pillar 3 disclosure requirements entitled, “*Pillar 3 disclosure requirements – consolidated and enhanced framework*”. The disclosure standard consolidates all existing Pillar 3 disclosure requirements of the Basel III framework, including the leverage and liquidity ratios disclosure templates.

In December 2018, the BCBS issued its third and final phase (phase three) of the Pillar 3 disclosure requirements, *Pillar 3 disclosure requirements – updated framework*. This phase incorporates revisions and additions to the Pillar 3 framework arising from the finalization of the Basel III reforms in December 2017, such as additional disclosure requirements comparing RWA as determined by banks’ internal models against results based on the Standardized Approach, and new disclosure requirements on asset encumbrance and capital distribution constraints. The phase three requirements, together with the phase one and two disclosure requirements released in January 2015 and March 2017, respectively, complete the Pillar 3 framework. On March 27, 2020, OSFI announced that it would delay its implementation of the phase three BCBS Pillar 3 disclosure requirements to January 31, 2023. We expect OSFI to similarly defer BCBS phase two guidance to January 31, 2023.

Effective November 1, 2018, OSFI adopted the BCBS frameworks related to the Standardized Approach for measuring counterparty credit risk (SA-CCR), capital requirements for bank exposures to central counterparties (CCPs) and the revised securitization framework as incorporated in OSFI’s Capital Adequacy Requirements (CAR) guideline.

On November 1, 2019, the impact of adoption of IFRS 16 *Leases*, and removal of allowed grandfathering and transitioning treatment for certain securitization and counterparty credit risk exposures was incorporated in our measurement of regulatory capital. In addition, we adopted, the Standardized Approach for consolidated regulatory reporting of operational risk as the use of the Advanced Measurement Approach was discontinued by OSFI. This Pillar 3 report reflects the CAR guideline requirements for all periods, including prior period comparatives.

To address the recent economic disruption caused by the COVID-19 pandemic, OSFI announced a series of regulatory capital modifications which are described in more detail in our Capital management section of our 2020 Annual Report, as updated by the Capital management section of our Q1 2021 Report to Shareholders. Announced changes included the reduction of the domestic stability buffer to 1% of total RWA while also providing transitional expected credit loss (ECL) modifications and risk-weight exclusions for certain exposures. In addition, OSFI also allowed delaying for six months, from the date of deferral, the past due treatment of all loan deferrals requested by clients. On August 31, 2020, OSFI amended this deferral treatment allowing any deferrals issued on or after August 31 to September 30, 2020 to only be exempt from past due treatment for a period of 3 months. Therefore, any deferrals given to clients on or after October 1, 2020 must follow the past due treatment required under the CAR guidelines. Our reported figures reflect this guidance as fully described in our Capital management section of our 2020 Annual Report, as updated by the Capital management section of our Q1 2021 Report to Shareholders.

Since Q2 2020, our disclosure for KM1: Key Capital and Leverage metrics template includes disclosure of our capital ratios assuming transitional ECL modifications had not been applied, as required by OSFI.

Refer to the Capital Management section of our Q1 2021 Report to Shareholders for further information on upcoming regulatory reforms which were announced during the quarter.

### Leverage framework

On October 30, 2014, OSFI issued its “*Leverage Requirements (LR) Guideline*”, which reflected its adoption of the BCBS “*Basel III leverage ratio framework and disclosure requirement*” effective the first fiscal quarter of 2015. The LR guideline requires banks to disclose their leverage ratio and its underlying components. The leverage ratio is defined as the capital measure divided by the leverage exposure measure. The capital measure is defined as Tier 1 capital and the leverage exposure measure is the sum of (a) on-balance sheet exposures; (b) derivative exposures; (c) securities financing transaction (SFT) exposures and (d) off-balance sheet items.

Poorly managed leverage can lead to unwarranted corrective measures due to excessive exposure growth or capital reduction, causing detriment to the bank’s balance sheet and overall shareholders wealth. Maintaining a prescribed minimum level of leverage helps neutralize leverage risk in the event of unexpected economic crises. OSFI requires maintenance of a minimum leverage ratio of 3% at all times.



On October 30, 2018, OSFI published its updated LR Guideline, effective November 1, 2018. The revisions aligned the LR guideline with OSFI's adoption of the BCBS "*Standardized approach for measuring counterparty credit risk exposures*" and *Revisions to the securitization framework*". On November 1, 2019, the impact of adoption of IFRS 16 Leases, was incorporated into our leverage ratio.

In addition to the pre-existing 3% leverage ratio minimum requirement, the BCBS has introduced an additional leverage ratio buffer requirement for global systemically-important banks (G-SIB) as part of their Basel III reforms "*Basel III: Finalizing post-crisis reforms*" (December 2017)". The G-SIB leverage ratio must be met with Tier 1 capital and is set at 50% of a G-SIB's higher-loss absorbency risk-weighted requirement. On July 16, 2018 OSFI announced that all Canadian D-SIBs will be held to the 3.5% minimum leverage requirements including RBC which has been designated a G-SIB.

On November 20, 2018, OSFI updated its Leverage disclosure guidelines, which are based on BCBS phase two disclosure requirements, to reflect the revisions to the LR and CAR guidelines mentioned above. Refer to our Leverage disclosures included in this report, as required by OSFI.

To address the recent economic disruption caused by the COVID-19 pandemic, OSFI announced two leverage ratio modifications. The first leverage ratio modification required the exclusion of central bank reserves and sovereign-issued securities that qualify as high quality liquid assets from our total leverage exposure amount for a period of one year ending April 30, 2021. The second modification required the exclusion of loans issued under the US Government Payment Protection Program (PPP) from our total leverage exposure amount. On Nov. 5, 2020, OSFI extended the allowed exclusion of central bank reserves and sovereign-issued securities another eight months to December 31, 2021. Our reported leverage figures reflect this guidance as fully described in our Capital management section of our 2020 Annual Report, as updated in the Capital management section of our Q1 2021 Report to Shareholders.

Since Q2 2020, our disclosure of LR2: Leverage ratio common disclosure template includes disclosure of our leverage ratio assuming transitional ECL modification had not been applied, as required by OSFI.

## TLAC framework

The Canadian Bail-in regime, including OSFI's Total Loss Absorbing Capacity (TLAC) Framework Guideline, came into effect on September 23, 2018. The purpose of the TLAC requirement is to address the sufficiency of a Canadian D-SIB's loss absorbing capacity in supporting its recapitalization in the event of its failure. TLAC is defined as the aggregate of Tier 1 capital, Tier 2 capital, and other TLAC instruments (senior bail-in debt), which includes senior unsecured debt with an original term to maturity of greater than 400 days and remaining term to maturity of greater than 365 days. Under the Bail-in regime, bail-in debt, which would ordinarily rank equally to Other Liabilities in liquidation, is subject to conversion under statutory resolution powers whereas Other Liabilities are not subject to such conversion.

TLAC requirements establish two minimum standards; which are required to be met effective November 1, 2021: the risk-based TLAC ratio, which builds on the risk-based capital ratios described in the CAR guideline, and the TLAC leverage ratio, which builds on the leverage ratio described in OSFI's Leverage Requirements guideline. The risk-based TLAC ratio is defined as TLAC divided by Total risk-weighted assets (RWA) while the TLAC leverage ratio is defined as TLAC divided by the Leverage ratio exposure. OSFI requires systemically important banks to maintain a minimum TLAC ratio of 22.5% (inclusive of the revised domestic stability buffer of 1% in Q2 2020) and a TLAC leverage ratio of 6.75%. We began issuing TLAC eligible debt in Q4 2018 and our TLAC ratio is expected to increase through normal course refinancing of maturing debt through the effective date of the TLAC requirements.

In May 2018, OSFI published its TLAC Disclosure Guideline for Canadian D-SIBs. The disclosure requirements reflect the BCBS TLAC disclosure requirements as outlined in the BCBS March 2017 phase two requirements mentioned above. Refer to our TLAC disclosures included in this report, as required by OSFI.

To reflect the transitional ECL modification provided by OSFI, as discussed in the Capital framework and Leverage framework sections above, since Q2 2020 our disclosure of KM2: Key metrics – TLAC requirements includes both our TLAC ratio and TLAC leverage ratio assuming the transitional ECL modification had not been applied, as required by OSFI.



**DISCLOSURE MAP**

| Pillar 3 Requirement                             | Pillar 3 Requirement   | 2020 Annual Report section  | Sub-section                        | 2020 Annual Report Reference                        |  |   |
|--|--|---|------------------------------------|---|--|---|
| Overview of key metrics, risk management and RWA | KM1  |   |                                    |   |  |   |
|  | OVA  | a) Business model and risk profile                                      | Significant developments: COVID-19 | Impact of pandemic risk factor                      | 19                                     |   |
|  |  |   |                                    | Programs in support of liquidity and funding        | 21                                     |   |
|  |  |   | Top and emerging risks             | Top and emerging risks                              | 53-55                                  |   |
|  |  |   | Risk management overview           | Risk management principles                          | 56                                     |   |
|  |  |   |                                    | Risk drivers  | 56                                     |   |
|  |  |   | Enterprise risk management         | Risk governance                                     | 57                                     |   |
|  |  |   |                                    | Risk appetite                                       | 58                                     |   |
|  |  |   |                                    | Risk measurement                                    | 58-59                                  |   |
|  |  |   |                                    | Risk control  | 59-60                                  |   |
|  |  |   | b) Risk governance structure       | Enterprise risk management                          | Risk governance                        | 57  |
|  |  | Risk control  |                                    |   | 59-60                                  |   |
|  |  | c) Communication and enforcement of risk culture within the bank        | Enterprise risk management         | Culture and conduct risk                            | 60-61                                  |   |
|  |  | d) Scope and main features of risk measurement systems                  | Enterprise risk management         | Risk measurement                                    | 58-59                                  |   |
|  |  | e) Risk information reporting   | Enterprise risk management         | Risk control - <i>Risk monitoring and reporting</i> | 60                                     |   |
|  |  | f) Stress testing   | Enterprise risk management         | Risk measurement – <i>Stress testing</i>            | 59                                     |   |
|  |  |   |                                    | Market risk   | Stress tests                           | 73  |
|  |  |   |                                    | Systemic risk                                       | Systemic risk                          | 93-94   |
|  |  |   |                                    |   | Risk appetite                          | 58  |
|  |  | g) Strategies and processes applied to manage, hedge and mitigate risks | Enterprise risk management         | Risk measurement                                    | 58-59                                  |   |
|  |  |   |                                    | Risk control  | 59-60                                  |   |
|  |  |   |                                    | Overview  | 61-62                                  |   |
|  |  |   | Credit risk                        |   | Credit risk measurement                | 62  |
|  |  |   |                                    |   | Credit risk assessment                 | 63-64   |
|  |  |   |                                    |   | Credit risk mitigation                 | 64-65   |
|  |  |   |                                    |   | Credit risk approval                   | 65  |
|  |  |   |                                    |   | Credit risk administration             | 65  |
|  |  |   | Market risk                        |   | Market risk controls – FVTPL positions | 73  |
|  |  |   |                                    |   | Stress tests                           | 73  |
|  |  | Market risk controls – Interest Rate Risk in the Banking Book (IRRBB)   |                                    |   | 75                                     |   |
|  |  | IRRBB measurement   |                                    |   | 75                                     |   |
|  |  | Liquidity and funding risk  |                                    | Non-trading foreign exchange rate risk              | 76                                     |   |
|  |  |   |                                    | Overview  | 78                                     |   |
|  |  |   |                                    | Risk control  | 79                                     |   |
|  |  |   |                                    | Risk measurement                                    | 79                                     |   |
|  |  |   |                                    | Funding   | 81-83                                  |   |
|  |  | Insurance risk  |                                    | Liquidity coverage ratio                            | 85-86                                  |   |
|  |  |   |                                    | Insurance risk                                      | 89                                     |   |
|  |  |   |                                    | Overview  | 89                                     |   |
|  |  |   |                                    | Operational risk                                    | Operational risk framework             | 89  |
|  |  |   |                                    |   | Regulatory compliance risk             | Regulatory compliance risk  |
|  |  |   |                                    | Strategic risk                                      | Strategic risk                         | 91  |
|  |  |   |                                    | Reputation risk                                     | Reputation risk                        | 91-92   |
|  |  |   |                                    | Legal and regulatory environment risk               | Legal and regulatory environment risk  | 92-93   |
|  |  |   |                                    | Competitive risk                                    | Competitive risk                       | 93  |
|  |  |   |                                    | Systemic risk                                       | Systemic risk                          | 93-94   |
|  |  |   |                                    | Environmental and social risk                       | Environmental and social risk          | 95  |
|  |  |   |                                    | Consolidated Financial Statements                   |  | Note 8 – Derivative financial instruments and hedging activities - <i>Derivatives issued for trading purposes</i> |
|  | Note 8 – Derivative financial instruments and hedging activities - <i>Derivatives issued for other-than-trading purposes</i> |   |                                    |   |  | 177-178   |
|  | Note 8 – Derivative financial instruments and hedging activities - <i>Derivative-related credit risk</i>                     | 180-181   |                                    |   |  |   |
| OV1  |  |   |                                    |   |  |   |

**DISCLOSURE MAP (continued)**

| Pillar 3 Requirement  | Pillar 3 Requirement  | 2020 Annual Report section   | Sub-section  | 2020 Annual Report Reference   |                        |       |
|---|---|--|--|--|------------------------|-------|
| Linkages between financial statements and regulatory exposures  | LI1   |  |  |  |                        |       |
|   | LI2   |  |  |  |                        |       |
|   | LIA   |  |  |  |                        |       |
| Composition of Capital  | CC1   |  |  |  |                        |       |
|   | CC2   |  |  |  |                        |       |
|   | CCA <sup>1</sup>  | Main features of regulatory capital instruments and of other TLAC-eligible instruments   |  |  |                        |       |
| Credit risk   | CRA   | a) Translation of the business model into the components of the bank's credit risk profile   | Credit risk  | Overview   | 61-62                  |       |
|   |   |  |  | Measurement of economic and regulatory capital - <i>Gross credit risk exposure</i>   | 62-63                  |       |
|   |   | b) Criteria and approach used for defining credit risk management policy and for setting credit risk limits  | Enterprise risk management   |  | Risk governance        | 57    |
|   |   |  |  |  | Risk appetite          | 58    |
|   |   |  |  |  | Risk measurement       | 58-59 |
|   |   |  | Credit risk  | Risk control - <i>Delegated authorities and risk limits</i>  | 60                     |       |
|   |   | c) Structure and organization of the credit risk management and control function   | Enterprise risk management   | Credit risk  | Overview               | 61-62 |
|   |   |  |  |  | Credit risk assessment | 63-64 |
|   |   |  |  |  | Credit risk mitigation | 64-65 |
|   |   |  |  |  | Credit risk approval   | 65    |
|   | d) Interaction between the credit risk management, risk control, compliance and internal audit functions                | Enterprise risk management   | Enterprise risk management   | Risk governance  | 57                     |       |
|   |   |  |  | Risk control   | 59-60                  |       |
|   | e) Scope and content of the reporting on credit risk exposure to the executive management and to the board of directors | Enterprise risk management   | Enterprise risk management   | Risk governance  | 57                     |       |
|   |   |  |  | Risk control - <i>Risk monitoring and reporting</i>  | 60                     |       |
|   | CR1   |  |  |  |                        |       |
|   | CR2 <sup>2</sup>  |  |  |  |                        |       |
|   | CRB   | a) The scope and definitions of "past due" and "impaired" exposures used for accounting purposes and the differences, if any, between the definition of past due and default for accounting and regulatory purposes                            | Consolidated Financial Statements  | Note 2 – Summary of significant accounting policies, estimates and judgments - Allowance for credit losses - <i>Definition of default Credit impaired financial assets (Stage 3)</i> | 138                    |       |
| Note 5 – Loans and allowance for credit losses - <i>Loans past due but not impaired</i>                                   |   |  |  | 172  |                        |       |
| b) The extent of past-due exposures (more than 90 days) that are not considered to be impaired and the reasons for this   |   | Consolidated Financial Statements  | Note 5 – Loans and allowance for credit losses - <i>Loans past due but not impaired</i>                    | 172  |                        |       |
| c) Description of methods used for determining accounting provisions for credit losses                                    |   | Consolidated Financial Statements  | Note 2 – Summary of significant accounting policies, estimates and judgments - Allowance for credit losses | 136-139  |                        |       |
| Description of the categorization of ECL accounting provisions (general and specific) for standardized approach exposures | n/a   | n/a – For regulatory calculations under both the Standardized and IRB approaches, the IFRS 9 stage 3 allowances are considered to be specific allowances and the IFRS 9 stage 1 and stage 2 allowances are considered to be general allowances |  |  |                        |       |
| d) The bank's own definition of a restructured exposure   | Consolidated Financial Statements   | Note 2 – Summary of significant accounting policies, estimates and judgments - Allowance for credit losses - <i>Modifications</i>  | 139  |  |                        |       |

<sup>1</sup> CCA is available at <https://www.rbc.com/investor-relations/regulatory-information.html>.

<sup>2</sup> Requirement for disclosure of this table is only semi-annual.

**DISCLOSURE MAP (continued)**

| Pillar 3 Requirement       | Pillar 3 Requirement  | 2020 Annual Report section  | Sub-section  | 2020 Annual Report Reference   |  |
|----------------------------|---|---|--|--|--|
| Credit risk<br>(continued) | CRC   | Credit risk   | Credit risk assessment – <i>Counterparty credit risk</i>   | 63-64  |  |
|                            |   | Consolidated Financial Statements   | Note 8 – Derivative financial instruments and hedging activities - <i>Derivative-related credit risk</i>                                       | 180-181  |  |
|                            |   |   | Note 30 – Offsetting financial assets and financial liabilities  | 216-217  |  |
|                            |   | b) Core features of policies and processes for collateral evaluation and management   | Credit risk  | Credit risk mitigation - <i>Collateral</i>   | 64-65  |
|                            |   | c) Information about market or credit risk concentrations under the credit risk mitigation instruments used                                       | Credit risk  | Credit risk mitigation   | 64-65  |
|                            | Consolidated Financial Statements   |   | Credit risk approval - <i>Credit risk limits</i>   | 65   |  |
|                            | CR3 <sup>2</sup>  |   |  |  |  |
|                            | CRD   |   |  |  |  |
|                            | CR4   |   |  |  |  |
|                            | CR5   |   |  |  |  |
|                            | CRE   |   |  |  |  |
|                            | CR6   |   |  |  |  |
| CR7                        |   |   |  |  |  |
| CR8                        |   |   |  |  |  |
| CR9 <sup>3</sup>           |   |   |  |  |  |
| CR10                       |   | n/a   | n/a  | n/a  |  |
| Counterparty credit risk   | CCRA  | a) Risk management objectives and policies related to counterparty credit risk  | Credit risk  | Credit risk assessment – <i>Counterparty credit risk</i>   | 63-64  |
|                            |   | Consolidated Financial Statements   | Note 8 – Derivative financial instruments and hedging activities - <i>Derivative-related credit risk</i>                                       | 180-181  |  |
|                            |   |   | b) The method used to assign the operating limits defined in terms of internal capital for counterparty credit exposures and for CCP exposures | Credit risk  | Credit risk assessment – <i>Counterparty credit risk</i> |
|                            |   | c) Policies relating to guarantees and other risk mitigants and assessments concerning counterparty credit risk, including exposures towards CCPs | Credit risk  | Credit risk assessment – <i>Counterparty credit risk</i>   | 63-64  |
|                            |   |   | Consolidated Financial Statements  | Note 8 – Derivative financial instruments and hedging activities - <i>Derivative-related credit risk</i> | 180-181  |
|                            |   | Consolidated Financial Statements   | Note 30 – Offsetting financial assets and financial liabilities  | 216-217  |  |
|                            | d) Policies with respect to wrong-way risk exposures  | Credit risk   | Credit risk assessment – <i>Wrong-way risk</i>   | 64   |  |
|                            | e) The impact in terms of the amount of collateral that the bank would be required to provide given a credit rating downgrade | Liquidity and funding risk  | Credit ratings   | 84   |  |
|                            | CCR1  |   |  |  |  |
|                            | CCR2  |   |  |  |  |
|                            | CCR3  |   |  |  |  |
|                            | CCR4  |   |  |  |  |
| CCR5 <sup>2</sup>          |   |   |  |  |  |
| CCR6 <sup>2</sup>          |   |   |  |  |  |
| CCR7                       |   | n/a   | n/a  | n/a  |  |
| CCR8                       | f) Exposures to central counterparties  |   |  |  |  |

<sup>2</sup> Requirement for disclosure of this table is only semi-annual.

<sup>3</sup> Requirement for disclosure of this table is only annual.

**DISCLOSURE MAP (continued)**

| Pillar 3 Requirement                     | Pillar 3 Requirement   | 2020 Annual Report section   | Sub-section   | 2020 Annual Report Reference  |         |
|--|--|--|---|---|---------|
| Securitization                           | SECA   | Off-balance sheet arrangements   | Off-balance sheet arrangements  | 51-53   |         |
|  |  | a) Objectives in relation to securitization activities   | Consolidated Financial Statements   | Note 6 – Derecognition of financial assets  | 172-173 |
|  |  |  | Consolidated Financial Statements   | Note 7 – Structured entities  | 173-176 |
|  |  | b) List of SPEs where RBC is sponsor / provides implicit support   | Consolidated Financial Statements   | Note 7 – Structured entities  | 173-176 |
|  |  | c) Accounting policies for securitization  | Consolidated Financial Statements   | Note 2 – Summary of significant accounting policies, estimates and judgments – <i>Basis of consolidation</i>            | 132-133 |
|  |  |  |   | Note 2 – Summary of significant accounting policies, estimates and judgments – <i>Derecognition of financial assets</i> | 140     |
|  |  |  | Critical accounting policies and estimates  | Consolidation of structured entities  | 107     |
|  |  | d) the names of external credit assessment institution (ECAIs) used for securitizations and the types of securitization exposure for which each agency is used | Capital Management (also refer to CRD in this document)   | Regulatory capital approach for securitization exposures  | 105     |
|  |  | e) Use of Basel IAA for capital purposes   | Credit risk   | n/a   | 61-65   |
|  |  |  | Capital Management  | Regulatory capital approach for securitization exposures  | 105     |
|  | f) Use of other internal assessment for capital purposes   | Credit risk  | Credit risk assessment  | 63-64   |         |
|  | SEC1   | Securitization exposures in the banking book   |   |   |         |
|  | SEC2   | Securitization activities in the trading book  |   |   |         |
|  | SEC3   | Securitization exposures in the banking book and associated regulatory capital requirements - bank acting as originator or as sponsor                          |   |   |         |
| SEC4                                     | Securitization exposures in the banking book and associated capital requirements - bank acting as investor               |  |   |   |         |
| Market risk                              | MRA  | Market risk  | Market risk controls – FVTPL positions  | 73  |         |
|  |  |  | Stress tests  | 73  |         |
|  |  |  | Market risk measures – FVTPL positions  | 74  |         |
|  |  |  | Market risk measures for assets and liabilities of RBC Insurance  | 75  |         |
|  |  |  | Market risk controls – Interest Rate Risk in the Banking Book (IRRBB)                                   | 75  |         |
|  |  |  | IRRBB measurement   | 75  |         |
|  |  |  | Market risk measures – IRRBB Sensitivities  | 75-76   |         |
|  | Market risk measures for other material non-trading portfolios   | 76   |   |   |         |
|  | Policies for hedging risk and strategies/processes for monitoring the continuing effectiveness of hedges                 | Consolidated Financial Statements  | Note 2 – Summary of significant accounting policies, estimates and judgements – <i>Hedge accounting</i> | 140-141   |         |
|  | b) Description of the market risk governance structure established to implement the strategies and processes of the bank | Enterprise risk management   | Risk governance   | 57  |         |
|  |  |  | Risk appetite   | 58  |         |
|  |  |  | Risk measurement  | 58-59   |         |
|  |  |  | Risk control  | 59-60   |         |
| Risk measurement – <i>Stress testing</i> |  |  | 59  |   |         |
| Culture and conduct risk                 | 60-61  |  |   |   |         |



**DISCLOSURE MAP (continued)**

| Pillar 3 Requirement                   | Pillar 3 Requirement   | 2020 Annual Report section   | Sub-section   | 2020 Annual Report Reference |
|--|--|--|---|------------------------------|
| Market risk (continued)                | Description of the relationships and the communication mechanisms between the different parties involved in market risk management | Enterprise risk management   | Risk governance   | 57                           |
|  |  |  | Risk control  | 59-60                        |
|  | c) Scope and nature of risk reporting and/or measurement systems   | Enterprise risk management   | Risk measurement  | 58-59                        |
|  |  |  | Risk control  | 59-60                        |
|  |  |  | Risk measurement – <i>Stress testing</i>                              | 59                           |
|  |  |  | Market risk controls – FVTPL positions                                | 73                           |
|  |  | Market risk  | Stress tests  | 73                           |
|  |  |  | Market risk measures – FVTPL positions                                | 74                           |
|  |  |  | Market risk measures for assets and liabilities of RBC Insurance      | 75                           |
|  |  |  | Market risk controls – Interest Rate Risk in the Banking Book (IRRBB) | 75                           |
|  |  |  | IRRBB measurement   | 75                           |
|  |  |  | Market risk measures – IRRBB Sensitivities                            | 75-76                        |
|  | c) General description of the models (VaR/stressed VaR)  | Market risk  | Market risk controls – FVTPL positions                                | 73                           |
|  |  | g) Description of stress testing applied to the modelling parameters | Market risk   | Stress tests                 |
|  | MR1  |  |   |                              |
| MR2                                    |  |  |   |                              |
| MR3                                    |  |  |   |                              |
| MR4 <sup>2</sup>                       |  |  |   |                              |
| Leverage                               |  | LR1  |   |                              |
|  | LR2  |  |   |                              |
| Total loss absorbing capacity          | KM2  |  |   |                              |
|  | TLAC1  |  |   |                              |
|  | TLAC2  |  |   |                              |
| Operational Risk                       | a) Details of the approach for operational risk capital assessment for which the bank qualifies                                    | Operational risk   | Operational risk capital  | 90                           |
|  | b) Description of the advanced measurement approaches for operational risk (AMA) <sup>4</sup>                                      | n/a  | n/a   | n/a                          |
|  | c) For banks using the AMA, a description of the use of insurance for the purpose of mitigating operational risk <sup>4</sup>      | n/a  | n/a   | n/a                          |
| Interest rate risk in the banking book |  | Market risk  | Market risk   | 73-78                        |

<sup>2</sup> Requirement for disclosure of this table is only semi-annual.

<sup>4</sup> Effective November 1, 2019, OSFI discontinued the AMA approach.

**OVERVIEW OF KEY METRICS, RISK MANAGEMENT AND RWA**
**KM1: Key Capital and Leverage metrics (at consolidated group level)**

|   | (Millions of Canadian dollars) <sup>1</sup>  | a                  | b                  | c                  | d                     |
|---|--|--------------------|--------------------|--------------------|-----------------------|
|   |  | January 31<br>2021 | October 31<br>2020 | January 31<br>2020 | Q o Q Change<br>(a-b) |
| <b>Available capital (amounts)</b>                                |  |                    |                    |                    |                       |
| 1   | Common Equity Tier 1 (CET1)  | 69,555             | 68,082             | 63,054             | 1,473                 |
| 1a  | Common Equity Tier 1 with transitional arrangements for ECL provisioning not applied                       | 68,579             | 66,635             |                    |                       |
| 2   | Tier 1   | 76,733             | 74,005             | 68,709             | 2,728                 |
| 2a  | Tier 1 with transitional arrangements for ECL provisioning not applied                                     | 75,757             | 72,559             |                    |                       |
| 3   | Total capital  | 86,543             | 84,928             | 78,220             | 1,615                 |
| 3a  | Total capital with transitional arrangements for ECL provisioning not applied                              | 86,543             | 84,928             |                    |                       |
| <b>Risk-weighted assets (amounts)</b>                             |  |                    |                    |                    |                       |
| 4   | Total risk-weighted assets (RWA)   | 557,519            | 546,242            | 523,725            | 11,277                |
| <b>Risk-based capital ratios as a percentage of RWA</b>           |  |                    |                    |                    |                       |
| 5   | Common Equity Tier 1 ratio   | 12.5%              | 12.5%              | 12.0%              | -                     |
| 5a  | Common Equity Tier 1 ratio with transitional arrangements for ECL provisioning not applied                 | 12.3%              | 12.2%              |                    |                       |
| 6   | Tier 1 ratio   | 13.8%              | 13.5%              | 13.1%              | 0.3%                  |
| 6a  | Tier 1 ratio with transitional arrangements for ECL provisioning not applied                               | 13.6%              | 13.3%              |                    |                       |
| 7   | Total capital ratio  | 15.5%              | 15.5%              | 14.9%              | -                     |
| 7a  | Total capital ratio with transitional arrangements for ECL provisioning not applied                        | 15.5%              | 15.5%              |                    |                       |
| <b>Additional CET1 buffer requirements as a percentage of RWA</b> |  |                    |                    |                    |                       |
| 8   | Capital conservation buffer requirement  | 2.5%               | 2.5%               | 2.5%               | -                     |
| 9   | Countercyclical buffer requirement <sup>2</sup>  | 0.0%               | 0.0%               | 0.0%               | -                     |
| 10  | Bank G-SIB and/or D-SIB additional requirements  | 1.0%               | 1.0%               | 1.0%               | -                     |
| 11  | Total of bank CET1 specific buffer requirements (row 8 + row 9 + row 10)                                   | 3.5%               | 3.5%               | 3.5%               | -                     |
| 12  | CET1 available after meeting the bank's minimum capital requirements (row 5 - 8%) <sup>3</sup>             | 4.5%               | 4.5%               | 4.0%               | -                     |
| <b>Basel III leverage ratio</b>                                   |  |                    |                    |                    |                       |
| 13  | Total Basel III leverage ratio exposure measure  | 1,585,334          | 1,552,863          | 1,629,884          | 32,471                |
| 14  | Basel III leverage ratio (row 2 / row 13)  | 4.8%               | 4.8%               | 4.2%               | -                     |
| 14a   | Basel III leverage ratio (row 2a / row 13) with transitional arrangements for ECL provisioning not applied | 4.8%               | 4.7%               |                    |                       |

<sup>1</sup> This table incorporates the impact of expected credit loss (ECL) accounting on regulatory capital including transitional ECL provisioning modification granted by OSFI on Mar. 27, 2020. This ECL provisioning modification reduced from a 75% after-tax exclusion rate for growth in Stage 1 and Stage 2 allowances allowed in 2020 to only a 50% after-tax exclusion rate allowed for 2021.

<sup>2</sup> Bank specific countercyclical buffer requirement for Q1 2021 was not material (Q4 2020 was not material; Q1 2020 – 2bps), the amount which is determined based on our private sector exposures in jurisdictions identified by BCBS. This reflects recent jurisdictional decreases in the required countercyclical buffer requirement.

<sup>3</sup> 8% reflects minimum capital requirements which includes D-SIB/G-SIB surcharge, and excludes the OSFI Domestic Stability Buffer of 1% effective Q2 2020 (2% in Q1 2020). Refer to our 2020 Annual Report as updated by our Q1 2021 Report to Shareholders.

Our CET1 ratio was 12.5%, unchanged from last quarter as internal capital generation, the favourable impact of fair value OCI adjustments, and the favourable impact from asset returns in determining our pension obligations offset higher RWA and the impact of lower capital modification related to the reduction of the exclusion rate applicable to eligible Stage 1 and Stage 2 allowances from 70% to 50%, as well as a release of provisions on performing loans in the current quarter.

Our Tier 1 capital ratio of 13.8% was up 30 bps, reflecting the factors noted above under the CET1 ratio and favourable impact of the issuance of Limited Recourse Capital Notes.

Our Total capital ratio of 15.5% was unchanged, primarily reflecting the factors noted above under the Tier 1 capital ratio and the net redemption of subordinated debentures.

RWA increased by \$11.3 billion, primarily driven by business growth mainly in retail and wholesale lending, transitional methodology changes to the securitization framework effective Q1 2021, as well as higher market risk. These factors were partially offset by the impact of foreign exchange translation and net credit upgrades. The impact of foreign exchange translation on RWA is largely mitigated with economic hedges in our CET1 ratio.

Our Leverage ratio of 4.8% was unchanged from last quarter, as internal capital generation and the issuance of Limited Recourse Capital Notes were offset by higher leverage exposures.

Leverage exposures increased by \$32.4 billion, mainly due to business growth primarily in cash and due from banks, securities and loans, partially offset by the impact of foreign exchange translation and higher regulatory modifications for central bank reserves and sovereign-issued securities qualifying as HQLA.

**OVA: Bank risk management approach**

The table below presents an overview of Pillar 3 disclosure requirements that have been met within our 2020 Annual Report and incorporated by reference into this Pillar 3 report. Our 2020 Annual Report is available free of charge on our website at <http://www.rbc.com/investorrelations>

| Pillar 3 disclosures requirement |  | RBC 2020 Annual Report section     | Sub-section   |
|----------------------------------|--|------------------------------------|---|
| a)                               | Business model and risk profile                                      | Significant developments: COVID-19 | Impact of pandemic risk factor  |
|                                  |  |                                    | Programs in support of liquidity and funding                                    |
|                                  |  | Top and emerging risks             | Top and emerging risks  |
|                                  |  | Risk management Overview           | Risk management principles  |
|                                  |  |                                    | Risk drivers  |
|                                  |  | Enterprise risk management         | Risk governance   |
|                                  |  |                                    | Risk appetite   |
| Risk measurement                 |  |                                    |   |
| b)                               | Risk governance structure  | Enterprise risk management         | Risk control  |
|                                  |  |                                    | Risk governance   |
| c)                               | Communication and enforcement of risk culture within the bank        | Enterprise risk management         | Culture and conduct risk  |
| d)                               | Scope and main features of risk measurement systems                  | Enterprise risk management         | Risk measurement  |
| e)                               | Risk information reporting   | Enterprise risk management         | Risk control - <i>Risk monitoring and reporting</i>                             |
| f)                               | Stress testing   | Enterprise risk management         | Risk measurement - <i>Stress testing</i>  |
|                                  |  | Market risk                        | Stress Tests  |
|                                  |  | Systemic risk                      | Systemic risk   |
| g)                               | Strategies and processes applied to manage, hedge and mitigate risks | Enterprise risk management         | Risk appetite   |
|                                  |  |                                    | Risk measurement  |
|                                  |  |                                    | Risk control  |
|                                  |  | Credit risk                        | Overview  |
|                                  |  |                                    | Credit risk measurement   |
|                                  |  |                                    | Credit risk assessment  |
|                                  |  |                                    | Credit risk mitigation  |
|                                  |  |                                    | Credit risk approval  |
|                                  |  |                                    | Credit risk administration  |
|                                  |  | Market risk                        | Market risk controls - FVTPL positions  |
|                                  |  |                                    | Stress Tests  |
|                                  |  |                                    | Market risk controls - Interest Rate Risk in the Banking Book (IRRBB) positions |
|                                  |  |                                    | IRRBB measurement   |
|                                  |  |                                    | Non-trading foreign exchange rate risk  |
|                                  |  | Liquidity and funding risk         | Overview  |
|                                  |  |                                    | Risk control  |
| Risk measurement                 |  |                                    |   |
| Funding                          |  |                                    |   |
|                                  |  |                                    | Liquidity Coverage Ratio (LCR)  |



**OVA: Bank risk management approach (continued)**

| Pillar 3 disclosures requirement   | RBC 2020 Annual Report section        | Sub-section   |
|--|---------------------------------------|---|
| g) Strategies and processes applied to manage, hedge and mitigate risks (continued)  | Insurance risk                        | Insurance risk  |
|  | Operational risk                      | Overview  |
|  |                                       | Operational risk framework  |
|  | Regulatory compliance risk            | Regulatory compliance risk  |
|  | Strategic risk                        | Strategic risk  |
|  | Reputation risk                       | Reputation risk   |
|  | Legal and regulatory environment risk | Legal and regulatory environment risk   |
|  | Competitive risk                      | Competitive risk  |
|  | Systemic risk                         | Systemic risk   |
|  | Environmental and social risk         | Environmental and social risk   |
|  | Consolidated Financial Statements     | Note 8 - Derivative financial instruments and hedging activities - <i>Derivatives issued for trading purposes</i> |
| Note 8 - Derivative financial instruments and hedging activities - <i>Derivatives issued for other-than-trading purposes</i> |                                       |   |
| Note 8 - Derivative financial instruments and hedging activities - <i>Derivative-related credit risk</i>                     |                                       |   |

**OV1: Overview of risk weighted assets (RWA)**

The following table presents an overview of our RWA and the related minimum capital requirements by risk type.

|           |   | a               | b               | c               | d  | e             |
|-----------|---|-----------------|-----------------|-----------------|--|---------------|
|           |   | RWA             |                 |                 | Minimum capital requirement <sup>1</sup> | RWA           |
|           |   | January 31 2021 | October 31 2020 | January 31 2020 | January 31 2021                          | Change (a-b)  |
|           | (Millions of Canadian dollars)  |                 |                 |                 |  |               |
| <b>1</b>  | <b>Credit risk (excluding counterparty credit risk)</b>                           | <b>368,824</b>  | <b>361,605</b>  | <b>350,825</b>  | <b>29,506</b>                            | <b>7,219</b>  |
| 2         | Of which Standardized approach (SA)   | 96,011          | 93,289          | 88,045          | 7,681                                    | 2,722         |
| 3         | Of which Internal rating-based (IRB) approach                                     | 272,813         | 268,316         | 262,780         | 21,825                                   | 4,497         |
| <b>4</b>  | <b>Counterparty credit risk (CCR)</b>   | <b>56,884</b>   | <b>54,315</b>   | <b>46,493</b>   | <b>4,550</b>                             | <b>2,569</b>  |
| 4a        | Of which other CCR  | 11,367          | 10,057          | 11,184          | 909                                      | 1,310         |
| 4b        | Credit valuation adjustment (CVA)   | 18,412          | 18,171          | 12,703          | 1,473                                    | 241           |
| 5         | Of which Standardised approach for counterparty credit risk (SA-CCR) <sup>2</sup> | 27,105          | 26,087          | 22,606          | 2,168                                    | 1,018         |
| 6         | Of which Internal model method (IMM)  | -               | -               | -               | -  | -             |
| 7         | Equity positions in banking book under market-based approach                      | 2,626           | 2,324           | 2,436           | 210                                      | 302           |
| 8         | Equity investments in funds – look-through approach                               | -               | -               | -               | -  | -             |
| 9         | Equity investments in funds – mandate-based approach                              | 2,846           | 2,902           | 2,702           | 228                                      | (56)          |
| 10        | Equity investments in funds – fall-back approach                                  | 4               | -               | 24              | -  | 4             |
| 11        | Settlement risk   | 342             | 191             | 409             | 27                                       | 151           |
| <b>12</b> | <b>Securitisation exposures in banking book</b>                                   | <b>10,780</b>   | <b>11,489</b>   | <b>11,448</b>   | <b>862</b>                               | <b>(709)</b>  |
| 12a       | Of which transitional grandfathering adjustment                                   | -               | -               | -               | -  | -             |
| 13        | Of which IRB ratings-based approach (SEC-IRBA)                                    | -               | 330             | 391             | -  | (330)         |
| 14        | Of which External ratings-based approach (SEC-ERBA)                               | 8,524           | 8,938           | 8,384           | 682                                      | (414)         |
| 15        | Of which Standardized approach (SEC-SA)   | 2,256           | 2,221           | 2,673           | 180                                      | 35            |
| <b>16</b> | <b>Market risk</b>  | <b>28,449</b>   | <b>27,374</b>   | <b>28,415</b>   | <b>2,276</b>                             | <b>1,075</b>  |
| 17        | Of which Standardized approach (SA)   | 12,532          | 12,089          | 12,010          | 1,003                                    | 443           |
| 18        | Of which Internal model approaches (IMA)  | 15,917          | 15,285          | 16,405          | 1,273                                    | 632           |
| <b>19</b> | <b>Operational risk</b>   | <b>70,908</b>   | <b>70,047</b>   | <b>67,243</b>   | <b>5,673</b>                             | <b>861</b>    |
| 20        | Of which Basic Indicator Approach   | -               | -               | -               | -  | -             |
| 21        | Of which Standardized Approach  | 70,908          | 70,047          | 67,243          | 5,673                                    | 861           |
| 22        | Of which Advanced Measurement Approach <sup>3</sup> (AMA)                         | -               | -               | -               | -  | -             |
| 23        | Amounts below the thresholds for deduction (subject to 250% risk weight)          | 15,856          | 15,995          | 13,730          | 1,269                                    | (139)         |
| 24        | Floor adjustment  | -               | -               | -               | -  | -             |
| <b>25</b> | <b>Total (1+4+7+8+9+10+11+12+16+19+23+24)</b>                                     | <b>557,519</b>  | <b>546,242</b>  | <b>523,725</b>  | <b>44,601</b>                            | <b>11,277</b> |

<sup>1</sup> The minimum capital requirements for each category can be calculated by multiplying the total RWA by 8% as per OSFI CAR guidelines.

<sup>2</sup> Includes RWA associated with CCP exposures, which EAD is calculated based on SA-CCR.

<sup>3</sup> Effective November 1, 2019, OSFI discontinued the AMA approach.

Total RWA increased by \$11.3 billion (\$19.2 billion before foreign exchange) or 2%, driven by the following:

**Credit risk**

RWA increased \$7.2 billion (\$13.4 billion before foreign exchange), mainly driven by growth in our lending business offset by net credit upgrades.

**Counterparty credit risk**

RWA increased by \$2.6 billion (\$3.6 billion before foreign exchange), mainly due to business growth.

**Securitization exposures in banking book**

RWA decreased by \$0.7 billion, mainly driven by business growth offset by our originated credit card portfolio moving to retail given our holdings do not meet required risk transference requirements under the new Securitization framework.

**Market risk**

RWA increased \$1.0 billion, mainly driven by higher inventories.

**Operational risk**

RWA increased \$0.9 billion, mainly driven by average revenue growth.



**RWA: Risk-Weighted Assets by Regulatory Approach**

The following table provides details of our risk-weighted assets by type of risk and regulatory approach.

| TOTAL CAPITAL RISK-WEIGHTED ASSETS <sup>1</sup>  | Q1/2021                           |                                      |                       |                |               |                    | Q1/2021              | Risk-weighted assets All-in Basis |                            |                            |                            |
|--|-----------------------------------|--------------------------------------|-----------------------|----------------|---------------|--------------------|----------------------|-----------------------------------|----------------------------|----------------------------|----------------------------|
|  | Risk-weighted assets All-in Basis |                                      |                       |                |               |                    | Capital requirements | Risk-weighted assets All-in Basis |                            |                            |                            |
|  | Exposure <sup>2</sup>             | Average of risk weights <sup>3</sup> | Standardized approach | IRB approach   | Other         | Total <sup>4</sup> | Total <sup>4</sup>   | Q4/2020 Total <sup>4</sup>        | Q3/2020 Total <sup>4</sup> | Q2/2020 Total <sup>4</sup> | Q1/2020 Total <sup>4</sup> |
| (Millions of Canadian dollars, except percentage and per share amounts)                        |                                   |                                      |                       |                |               |                    |                      |                                   |                            |                            |                            |
| <b>Credit risk <sup>5</sup></b>  |                                   |                                      |                       |                |               |                    |                      |                                   |                            |                            |                            |
| Lending-related and other  |                                   |                                      |                       |                |               |                    |                      |                                   |                            |                            |                            |
| Residential mortgages  | 308,823                           | 8%                                   | 9,164                 | 15,731         | -             | 24,895             | 1,992                | 24,604                            | 23,334                     | 23,503                     | 22,658                     |
| Other retail (Personal, Credit cards and Small business treated as retail)                     | 340,907                           | 21%                                  | 6,886                 | 65,226         | -             | 72,112             | 5,769                | 60,544                            | 59,402                     | 59,627                     | 59,483                     |
| Business (Corporate, Commercial, Medium-sized enterprises and Non-bank financial institutions) | 371,596                           | 57%                                  | 51,296                | 159,381        | -             | 210,677            | 16,854               | 218,803                           | 221,410                    | 233,045                    | 214,990                    |
| Sovereign (Government)   | 306,824                           | 5%                                   | 2,772                 | 13,106         | -             | 15,878             | 1,270                | 15,371                            | 15,195                     | 14,242                     | 10,979                     |
| Bank   | 31,540                            | 18%                                  | 1,812                 | 3,927          | -             | 5,739              | 459                  | 5,228                             | 6,453                      | 6,831                      | 5,882                      |
| <b>Total lending-related and other</b>   | <b>1,359,690</b>                  | <b>24%</b>                           | <b>71,930</b>         | <b>257,371</b> | <b>-</b>      | <b>329,301</b>     | <b>26,344</b>        | <b>324,550</b>                    | <b>325,794</b>             | <b>337,248</b>             | <b>313,992</b>             |
| Trading - related  |                                   |                                      |                       |                |               |                    |                      |                                   |                            |                            |                            |
| Repo-style transactions  | 904,280                           | 1%                                   | 37                    | 10,598         | 96            | 10,731             | 858                  | 9,496                             | 9,332                      | 8,930                      | 10,560                     |
| Derivatives - including CVA  | 93,761                            | 47%                                  | 1,905                 | 23,452         | 18,753        | 44,110             | 3,529                | 42,917                            | 43,768                     | 40,686                     | 34,137                     |
| <b>Total trading-related</b>   | <b>998,041</b>                    | <b>5%</b>                            | <b>1,942</b>          | <b>34,050</b>  | <b>18,849</b> | <b>54,841</b>      | <b>4,387</b>         | <b>52,413</b>                     | <b>53,100</b>              | <b>49,616</b>              | <b>44,697</b>              |
| <b>Total lending-related and other and trading-related</b>                                     | <b>2,357,731</b>                  | <b>16%</b>                           | <b>73,872</b>         | <b>291,421</b> | <b>18,849</b> | <b>384,142</b>     | <b>30,731</b>        | <b>376,963</b>                    | <b>378,894</b>             | <b>386,864</b>             | <b>358,689</b>             |
| Banking book equities <sup>6</sup>   | 3,747                             | 138%                                 | -                     | 5,166          | -             | 5,166              | 413                  | 4,931                             | 5,080                      | 5,001                      | 4,870                      |
| Securitization exposures   | 62,806                            | 17%                                  | 5,189                 | 5,591          | -             | 10,780             | 862                  | 11,489                            | 11,689                     | 12,716                     | 11,448                     |
| Regulatory scaling factor <sup>7</sup>   | n.a.                              | n.a.                                 | n.a.                  | 17,795         | -             | 17,795             | 1,424                | 17,385                            | 17,540                     | 18,126                     | 16,963                     |
| Other assets   | 31,327                            | 129%                                 | n.a.                  | n.a.           | 40,279        | 40,279             | 3,222                | 38,053                            | 36,595                     | 40,860                     | 36,097                     |
| <b>Total credit risk</b>   | <b>2,455,611</b>                  | <b>19%</b>                           | <b>79,061</b>         | <b>319,973</b> | <b>59,128</b> | <b>458,162</b>     | <b>36,652</b>        | <b>448,821</b>                    | <b>449,798</b>             | <b>463,567</b>             | <b>428,067</b>             |
| <b>Market risk <sup>8,9</sup></b>  |                                   |                                      |                       |                |               |                    |                      |                                   |                            |                            |                            |
| Interest rate  |                                   |                                      | 2,409                 | 5,717          | -             | 8,126              | 650                  | 7,841                             | 11,164                     | 6,213                      | 6,642                      |
| Equity   |                                   |                                      | 2,742                 | 1,331          | -             | 4,073              | 326                  | 3,628                             | 3,751                      | 2,971                      | 3,847                      |
| Foreign exchange   |                                   |                                      | 2,270                 | 331            | -             | 2,601              | 208                  | 2,917                             | 2,714                      | 2,403                      | 2,566                      |
| Commodities  |                                   |                                      | 232                   | 47             | -             | 279                | 22                   | 287                               | 245                        | 255                        | 239                        |
| Specific risk  |                                   |                                      | 4,879                 | 1,406          | -             | 6,285              | 503                  | 5,985                             | 7,322                      | 7,713                      | 8,358                      |
| Incremental risk charge <sup>10, 11</sup>  |                                   |                                      | -                     | 7,085          | -             | 7,085              | 567                  | 6,716                             | 7,080                      | 7,345                      | 6,763                      |
| <b>Total market risk</b>   |                                   |                                      | <b>12,532</b>         | <b>15,917</b>  | <b>-</b>      | <b>28,449</b>      | <b>2,276</b>         | <b>27,374</b>                     | <b>32,276</b>              | <b>26,900</b>              | <b>28,415</b>              |
| <b>Operational risk</b>  |                                   |                                      | <b>70,908</b>         | <b>-</b>       | <b>n.a.</b>   | <b>70,908</b>      | <b>5,673</b>         | <b>70,047</b>                     | <b>69,347</b>              | <b>67,945</b>              | <b>67,243</b>              |
| <b>Total risk-weighted assets (RWA)</b>  | <b>2,455,611</b>                  |                                      | <b>162,501</b>        | <b>335,890</b> | <b>59,128</b> | <b>557,519</b>     | <b>44,601</b>        | <b>546,242</b>                    | <b>551,421</b>             | <b>558,412</b>             | <b>523,725</b>             |

<sup>1</sup> Calculated using guidelines issued by OSFI under the Basel III All-in framework.

<sup>2</sup> Total exposure represents exposure at default (EAD) which is the expected gross exposure upon the default of an obligor. This amount excludes any allowance against impaired loans or partial write-offs and does not reflect the impact of credit risk mitigation. Exposures acquired through the Federal Reserve Paycheck Protection Program lending facility have been excluded, as required by OSFI.

<sup>3</sup> Represents the average of counterparty risk weights within a particular category.

<sup>4</sup> The minimum capital requirements for each category can be calculated by multiplying the total RWA by 8% as per OSFI CAR guidelines.

<sup>5</sup> For credit risk, a majority of our portfolios use the Internal Ratings Based (IRB) Approach and the remainder use the Standardized Approach.



<sup>6</sup> CAR guidelines define banking book equities based on the economic substance of the transaction rather than the legal form or accounting treatment associated with the financial instrument. As such, differences exist in the identification of equity securities held in the banking book and those reported in the financial statements. Banking book equities are financial instruments held for investment purposes and are not part of our trading book, consisting of publicly-traded and private equities, partnership units, venture capital and derivative instruments tied to equity interests.

As at Q1/21, the amount of publicly-traded equity exposures was \$1,668 million and private equity exposures amounted to \$2,079 million. Total exposure represents EAD, which is the expected gross exposure upon the default of an obligor.

Under OSFI guidelines, the Simple Risk Weight method under the Market-based Approach is being used to calculate RWA for direct equity exposures (\$2,593 million). The calculation of RWA for Equity Investments in Funds (\$1,153 million) uses the Mandate-based and Fall-Back Approaches.

<sup>7</sup> The scaling factor represents a calibration adjustment of 6% as prescribed by OSFI under the Basel III framework and is applied to RWA amounts for credit risk assessed under the IRB Approach.

<sup>8</sup> For market risk RWA measurement, we use an internal models approach where we have obtained regulatory approval, and a standardized approach for products yet to be approved. For standardized approach, we use internally validated models.

<sup>9</sup> Regulatory capital for our correlation trading portfolios is determined through the standardized approach as prescribed by OSFI. Therefore, we do not have a Comprehensive Risk Charge for these portfolios. Our securitization and resecuritization positions in our trading book also have capital requirements under the standardized approach. The changes in value due to market and credit risk in the securitization and resecuritization in the trading book are managed through the daily mark-to-market process. Furthermore, we employ market risk measures such as sensitivities to changes in option-adjusted spreads and underlying asset prices as well as value-at-risk (VaR) and stress testing measures.

<sup>10</sup> The incremental risk charge (IRC) was \$557 million as at Q1/21. The average was \$564 million, high was \$677 million and low was \$452 million for Q1/21. The IRC is measured over a one-year horizon at a 99.9% confidence level. We utilize a technique known as the Monte Carlo simulation process to generate a statistically relevant number of loss scenarios due to ratings migration and default in order to establish the losses at that confidence level. We also make certain assumptions about position liquidity (the length of time to close out a position) within the model that range from a floor of three months to maximum of one year. The determination of liquidity is based on issuer type and credit rating. Credit rating migration and default probabilities (PD) are based on historical data.

<sup>11</sup> The models are subject to the same internal independent vetting and validation procedures used for all regulatory capital models. Important assumptions are re-reviewed at least annually. Due to the long time horizon and high confidence level of the risk measure, we do not perform back-testing as we do for the VaR measure.

**LINKAGES BETWEEN FINANCIAL STATEMENTS AND REGULATORY EXPOSURES**
**LI1: Differences between accounting and regulatory scopes of consolidation and mapping of financial statement categories with regulatory risk categories**

The following table provides the differences between carrying values presented in our financial statements prepared in accordance with International Financial Reporting Standards (IFRS) and our regulatory exposures. It further breaks down the amounts in our financial statements into regulatory risk categories.

As at January 31, 2021

|  | a   | b   | c                                      |   |   |                                      | d  |          | e        |          | f        |          | g                |  |
|--|---|---|--|---|---|--------------------------------------|--|----------|----------|----------|----------|----------|------------------|--|
|  | Carrying values as reported in published financial statements | Carrying values under scope of regulatory consolidation | Carrying values of items: <sup>1</sup> |   |   |                                      |  |          |          |          |          |          |                  |  |
|  |   |   | Subject to credit risk framework       | Subject to counterparty credit risk framework | Subject to the securitization framework | Subject to the market risk framework | Not subject to capital requirements or subject to deduction from capital |          |          |          |          |          |                  |  |
| <i>(Millions of Canadian dollars)</i>  |   |   |  |   |   |                                      |  |          |          |          |          |          |                  |  |
| <b>Assets</b>  |   |   |  |   |   |                                      |  |          |          |          |          |          |                  |  |
| <b>Cash and due from banks</b>   | 149,588   | 149,588   | 149,414                                | 174   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | -                |  |
| <b>Interest-bearing deposits with banks</b>  | 33,731  | 33,731  | 33,731                                 | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | -                |  |
| <b>Securities</b>  |   |   |  |   |   |                                      |  |          |          |          |          |          |                  |  |
| Trading  | 148,023   | 136,539   | 2,549                                  | -   | 48                                      | 133,942                              | -  | -        | -        | -        | -        | -        | -                |  |
| Investment, net of applicable allowance  | 139,459   | 136,556   | 127,009                                | -   | 9,573                                   | -                                    | -  | -        | -        | -        | -        | -        | (26)             |  |
|  | 287,482   | 273,095   | 129,558                                | -   | 9,621                                   | 133,942                              | -  | -        | -        | -        | -        | -        | (26)             |  |
| <b>Assets purchased under reverse repurchase agreements and securities borrowed</b>  | 311,033   | 311,033   | -                                      | 311,034                                       | -                                       | -                                    | -  | -        | -        | -        | -        | -        | (1)              |  |
| <b>Loans</b>   |   |   |  |   |   |                                      |  |          |          |          |          |          |                  |  |
| Retail   | 464,579   | 464,234   | 464,234                                | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | -                |  |
| Wholesale <sup>3</sup>   | 213,462   | 211,058   | 190,781                                | 1,472   | 8,219                                   | 4,374                                | -  | -        | -        | -        | -        | -        | 6,212            |  |
|  | 678,041   | 675,292   | 655,015                                | 1,472   | 8,219                                   | 4,374                                | -  | -        | -        | -        | -        | -        | 6,212            |  |
| Allowance for loan losses  | (5,478)   | (5,478)   | -                                      | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | (5,478)          |  |
|  | 672,563   | 669,814   | 655,015                                | 1,472   | 8,219                                   | 4,374                                | -  | -        | -        | -        | -        | -        | 734              |  |
| <b>Segregated fund net assets</b>  | 2,127   | -   | -                                      | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | -                |  |
| <b>Other</b>   |   |   |  |   |   |                                      |  |          |          |          |          |          |                  |  |
| Customers' liability under acceptances   | 18,756  | 18,756  | 18,877                                 | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | (121)            |  |
| Derivatives <sup>2</sup>   | 110,917   | 111,676   | -                                      | 111,676                                       | -                                       | 107,658                              | -  | -        | -        | -        | -        | -        | -                |  |
| Premises and equipment, net  | 7,835   | 7,817   | 7,817                                  | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | -                |  |
| Goodwill   | 11,085  | 11,085  | -                                      | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | 11,085           |  |
| Other intangibles  | 4,633   | 4,514   | -                                      | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | 4,514            |  |
| Other assets   | 61,401  | 64,337  | 33,215                                 | 25,486  | -                                       | 4,530                                | -  | -        | -        | -        | -        | -        | 1,106            |  |
|  | 214,627   | 218,185   | 59,909                                 | 137,162                                       | -                                       | 112,188                              | -  | -        | -        | -        | -        | -        | 16,584           |  |
| <b>Total assets<sup>2</sup></b>  | <b>1,671,151</b>  | <b>1,655,446</b>  | <b>1,027,627</b>                       | <b>449,842</b>                                | <b>17,840</b>                           | <b>250,504</b>                       | <b>-</b>   | <b>-</b> | <b>-</b> | <b>-</b> | <b>-</b> | <b>-</b> | <b>17,291</b>    |  |
| <b>Liabilities and equity</b>  |   |   |  |   |   |                                      |  |          |          |          |          |          |                  |  |
| <b>Deposits</b>  |   |   |  |   |   |                                      |  |          |          |          |          |          |                  |  |
| Personal   | 348,304   | 348,304   | -                                      | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | 348,304          |  |
| Business and government  | 660,064   | 660,802   | -                                      | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | 660,802          |  |
| Bank   | 46,229  | 46,229  | -                                      | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | 46,229           |  |
|  | 1,054,597   | 1,055,335   | -                                      | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | 1,055,335        |  |
| <b>Segregated fund net liabilities</b>   | 2,127   | -   | -                                      | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | -                |  |
| <b>Other</b>   |   |   |  |   |   |                                      |  |          |          |          |          |          |                  |  |
| Acceptances  | 18,881  | 18,881  | -                                      | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | 18,881           |  |
| Obligations related to securities sold short   | 32,569  | 32,569  | -                                      | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | 32,569           |  |
| Obligations related to assets sold under repurchase agreements and securities loaned | 274,907   | 274,907   | -                                      | 274,907                                       | -                                       | -                                    | -  | -        | -        | -        | -        | -        | -                |  |
| Derivatives <sup>2</sup>   | 106,071   | 106,071   | -                                      | 106,071                                       | -                                       | 103,275                              | -  | -        | -        | -        | -        | -        | -                |  |
| Insurance claims and policy benefit liabilities                                      | 12,754  | -   | -                                      | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | -                |  |
| Other liabilities  | 69,810  | 68,195  | -                                      | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | 68,195           |  |
|  | 514,992   | 500,623   | -                                      | 380,978                                       | -                                       | 103,275                              | -  | -        | -        | -        | -        | -        | 119,645          |  |
| <b>Subordinated debentures</b>   | 9,186   | 9,186   | -                                      | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | 9,186            |  |
| <b>Total liabilities<sup>2</sup></b>   | <b>1,580,902</b>  | <b>1,565,144</b>  | <b>-</b>                               | <b>380,978</b>                                | <b>-</b>                                | <b>103,275</b>                       | <b>-</b>   | <b>-</b> | <b>-</b> | <b>-</b> | <b>-</b> | <b>-</b> | <b>1,184,166</b> |  |
| <b>Equity attributable to shareholders</b>   |   |   |  |   |   |                                      |  |          |          |          |          |          |                  |  |
| Preferred shares   | 7,215   | 7,215   | -                                      | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | 7,215            |  |
| Common shares  | 17,638  | 17,638  | -                                      | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | 17,638           |  |
| Retained earnings  | 62,751  | 62,774  | -                                      | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | 62,774           |  |
| Other components of equity   | 2,545   | 2,575   | -                                      | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | 2,575            |  |
|  | 90,149  | 90,202  | -                                      | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | 90,202           |  |
| <b>Non-controlling interests</b>   | 100   | 100   | -                                      | -   | -                                       | -                                    | -  | -        | -        | -        | -        | -        | 100              |  |
| <b>Total equity</b>  | <b>90,249</b>   | <b>90,302</b>   | <b>-</b>                               | <b>-</b>                                      | <b>-</b>                                | <b>-</b>                             | <b>-</b>   | <b>-</b> | <b>-</b> | <b>-</b> | <b>-</b> | <b>-</b> | <b>90,302</b>    |  |
| <b>Total liabilities and equity<sup>2</sup></b>                                      | <b>1,671,151</b>  | <b>1,655,446</b>  | <b>-</b>                               | <b>380,978</b>                                | <b>-</b>                                | <b>103,275</b>                       | <b>-</b>   | <b>-</b> | <b>-</b> | <b>-</b> | <b>-</b> | <b>-</b> | <b>1,274,468</b> |  |

<sup>1</sup> Column c to g reflect a further breakout of column b by providing the respective CAR guideline frameworks utilized and OSFI COVID-19 guidance.

<sup>2</sup> Derivative assets and liabilities are subject to both counterparty credit risk and market risk framework – hence column b will not equal to the sum of column c to g.

<sup>3</sup> Amount includes exposure related to the US Government Paycheck Protection Program which are excluded from risk-weighting as per OSFI COVID-19 guidance.

**LI2: Main sources of differences between regulatory exposure amounts and carrying values in financial statements**

The following table provides the key differences between the exposure amounts for regulatory purposes and the accounting carrying values as presented in our financial statements that are within the scope of regulatory consolidation.

As at January 31, 2021

|   | a                | b                     | c                        | d                                  | e                     |
|---|------------------|-----------------------|--------------------------|------------------------------------|-----------------------|
|   |                  |                       |                          |                                    |                       |
| (Millions of Canadian dollars)  | Total            | Credit risk framework | Securitization framework | Counterparty credit risk framework | Market risk framework |
| <b>1</b> <b>Asset carrying value amount under scope of regulatory consolidation (as per template LI1)<sup>1</sup></b> | <b>1,638,155</b> | <b>1,027,627</b>      | <b>17,840</b>            | <b>449,842</b>                     | <b>250,504</b>        |
| 2 Liabilities carrying value amount under regulatory scope of consolidation (as per template LI1) <sup>1</sup>        | 380,978          | -                     | -                        | 380,978                            | 103,275               |
| 3 Total net amount under regulatory scope of consolidation  | 1,257,177        | 1,027,627             | 17,840                   | 68,864                             | 147,229               |
| 4 Off-balance sheet amounts <sup>2</sup>  | 1,340,561        | 366,398               | 44,966                   | 929,197                            | -                     |
| 5 Differences due to Fair Value adjustment  | (912)            | (893)                 | -                        | (19)                               | -                     |
| 6 Differences due to different netting rules, other than those already included in row 2                              | 1,019            | 1,019                 | -                        | -                                  | -                     |
| 7 Differences due to consideration of provisions  | -                | -                     | -                        | -                                  | -                     |
| 8 Differences due to prudential filters   | -                | -                     | -                        | -                                  | -                     |
| 9 Difference due to accounting and risk treatment of securitizations and other items                                  | 610              | 610                   | -                        | -                                  | -                     |
| <b>10</b> <b>Exposure amounts considered for regulatory purposes</b>  | <b>2,598,455</b> | <b>1,394,761</b>      | <b>62,806</b>            | <b>998,042</b>                     | <b>147,229</b>        |

<sup>1</sup> Amount reflects Table LI1 columns (c), (d), (e) and (f) from the previous page. Derivative assets and liabilities are subject to both counterparty credit risk and market risk framework – hence column a will not equal to the sum of column b to e.

<sup>2</sup> Off-balance sheet amounts reflect the application of credit conversion factors.

**LIA: Explanations of differences between accounting and regulatory exposure amounts**

Our consolidated balance sheet ("accounting balance sheet") is prepared in compliance with IFRS as issued by the International Accounting Standards Board. We leverage our accounting balance sheet to apply the required regulatory requirements prescribed by OSFI to determine our regulatory capital consolidated balance sheet.

In Template LI1: Differences between accounting and regulatory scopes of consolidation and mapping of financial statement categories with regulatory risk categories, we identify the differences between our IFRS consolidated accounting balance sheet (column a in LI1) and our regulatory capital consolidated balance sheet (column b in LI1). Our regulatory capital consolidated balance sheet, on which capital adequacy requirements are determined, reflects all of our consolidated subsidiaries except for our insurance subsidiaries as prescribed by OSFI's CAR guidelines.

In Template LI2: Main sources of differences between regulatory exposure amounts and carrying values in financial statements, we quantify measurement differences other than regulatory consolidation.

Our banking book regulatory carrying values reflect our IFRS accounting balance sheet values except for our fair valued loans and debt securities carried at fair value through other comprehensive income (FVOCI), which under the Credit risk framework, are measured at amortized cost. Off-balance sheet regulatory asset values reflect prescribed conversion factors and undrawn amounts.

Regulatory carrying values for our Counterparty credit risk related to our derivative assets and liabilities, assets purchased under reverse repurchase agreements and securities borrowed and obligations related to assets sold under repurchase agreements and securities loaned are determined using OSFI's CAR guidelines Chapter 4 Settlement and Counterparty risk framework. On November 1, 2018, OSFI adopted the BCBS Standardized Approach for measuring Counterparty credit risk for derivative regulatory exposures and we have adopted this methodology for our derivative regulatory exposures. The main differences between the accounting and regulatory amounts for Counterparty credit risk relate to regulatory inclusion of potential future exposure amounts and differences in allowed IFRS and regulatory netting rules, and also application of financial collateral in the calculation of regulatory exposure amount.

The regulatory carrying value of exposures subject to the securitization framework includes our on-balance sheet third party securitization holdings as well as our securitized credit card exposures which meet the risk transference requirements under the CAR guidelines Chapter 7 but are not considered securitized for the purposes of our IFRS accounting balance sheet. Our regulatory carrying values are determined based on the BCBS revised securitization framework adopted by OSFI on November 1, 2018.

Our trading book regulatory carrying values are determined as prescribed under the CAR guidelines Chapter 9. We employ OSFI's prudent valuation guidance requirements, as stated in CAR Chapter 9 section 9.8 to our trading book. Refer to our 2020 Annual Report - Risk Management section which provides further insight into how we measure our market risk and the linkage of market risk to selected balance sheet items.



## CAPITAL

## CC1: Composition of Capital

The following table provides details of our regulatory capital and required regulatory adjustments under OSFI's CAR guidelines. Reconciliation references to CC2 of where these items are located on our IFRS and regulatory balance sheet are also included.

| Composition of Capital Template                                       |   | Cross Reference of Current Quarter to Regulatory Capital Balance Sheet (CC2) | Q1/21         | Q4/20         | Q3/20         | Q2/20         | Q1/20         |
|---|---|--|---------------|---------------|---------------|---------------|---------------|
| (Millions of Canadian dollars, except percentage and otherwise noted) |   |  |               |               |               |               |               |
| <b>Common Equity Tier 1 capital (CET1): Instruments and Reserves</b>  |   |  |               |               |               |               |               |
| 1   | Directly issued qualifying common share capital (and equivalent for non-joint stock companies) plus related stock surplus   | a+a'   | 17,883        | 17,732        | 17,713        | 17,787        | 17,487        |
| 2   | Retained earnings   | b+b'   | 62,506        | 59,573        | 57,573        | 57,196        | 56,298        |
| 3   | Accumulated other comprehensive income (and other reserves)   | c-c'   | 2,545         | 3,414         | 3,535         | 4,253         | 4,472         |
| 4   | Directly issued capital subject to phase out from CET1 (only applicable to non-joint stock companies)   |  | -             | -             | -             | -             | -             |
| 5   | Common share capital issued by subsidiaries and held by third parties (amount allowed in group CET1)  | d  | 12            | 12            | 12            | 13            | 12            |
| 6   | <b>Common Equity Tier 1 capital before regulatory adjustments</b>   |  | <b>82,946</b> | <b>80,731</b> | <b>78,833</b> | <b>79,249</b> | <b>78,269</b> |
| <b>Common Equity Tier 1 capital: Regulatory adjustments</b>           |   |  |               |               |               |               |               |
| 7   | Prudential valuation adjustments  |  | -             | -             | -             | -             | -             |
| 8   | Goodwill (net of related tax liability)   | e+e'+m'-t  | 10,984        | 11,198        | 11,252        | 11,483        | 11,189        |
| 9   | Other intangibles other than mortgage-servicing rights (net of related tax liability)   | f+f'-v   | 3,906         | 3,999         | 3,860         | 3,931         | 3,811         |
| 10  | Deferred tax assets excluding those arising from temporary differences (net of related tax liability)   | g  | 184           | 181           | 170           | 174           | 175           |
| 11  | Cash flow hedge reserve   | h  | (907)         | (1,079)       | (1,208)       | (1,183)       | (188)         |
| 12  | Shortfall of provisions to expected losses  | i  | -             | -             | -             | -             | 295           |
| 13  | Securitization gain on sale   |  | -             | -             | -             | -             | -             |
| 14  | Gains and losses due to changes in own credit risk on fair valued liabilities   | j  | (474)         | (314)         | (118)         | 776           | (148)         |
| 15  | Defined benefit pension fund net assets (net of related tax liability)  | k-u  | 673           | 111           | 102           | 108           | 81            |
| 16  | Investments in own shares (if not already netted off paid-in capital on reported balance sheet)   |  | -             | -             | -             | -             | -             |
| 17  | Reciprocal cross holdings in common equity  |  | -             | -             | -             | -             | -             |
| 18  | Non-significant investments in the capital of banking, financial and insurance entities, net of eligible short positions (amount above 10% threshold)   |  | -             | -             | -             | -             | -             |
| 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) |  | -             | -             | -             | -             | -             |
| 20  | Mortgage servicing rights (amount above 10% threshold)  |  | -             | -             | -             | -             | -             |
| 21  | Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability)   |  | -             | -             | -             | -             | -             |
| 22  | Amount exceeding the 15% threshold  |  | -             | -             | -             | -             | -             |
| 23  | of which: significant investments in the common stock of financials   | l  | -             | -             | -             | -             | -             |
| 24  | of which: mortgage servicing rights   |  | -             | -             | -             | -             | -             |
| 25  | of which: deferred tax assets arising from temporary differences  | m  | -             | -             | -             | -             | -             |
| 26  | Other deductions or regulatory adjustments to CET1 as determined by OSFI  |  | (975)         | (1,447)       | (1,357)       | (1,238)       | -             |
| 27  | Regulatory adjustments applied to Common Equity Tier 1 due to insufficient Additional Tier 1 and Tier 2 to cover deductions   |  | -             | -             | -             | -             | -             |
| 28  | <b>Total regulatory adjustments to Common Equity Tier 1</b>   |  | <b>13,391</b> | <b>12,649</b> | <b>12,701</b> | <b>14,051</b> | <b>15,215</b> |
| 29  | <b>Common Equity Tier 1 capital (CET1)</b>  |  | <b>69,555</b> | <b>68,082</b> | <b>66,132</b> | <b>65,198</b> | <b>63,054</b> |
| 29a   | <b>Common Equity Tier 1 Capital (CET1)</b> with transitional arrangements for ECL provisioning not applied  |  | <b>68,579</b> | <b>66,635</b> | <b>64,775</b> | <b>63,960</b> | <b>-</b>      |
| <b>Additional Tier 1 capital (AT1): Instruments</b>                   |   |  |               |               |               |               |               |
| 30  | Directly issued qualifying Additional Tier 1 instruments plus related stock surplus   |  | 7,175         | 5,921         | 5,923         | 4,175         | 4,175         |
| 31  | of which: classified as equity under applicable accounting standards  | n'   | 7,175         | 5,921         | 5,923         | 4,175         | 4,175         |
| 32  | of which: classified as liabilities under applicable accounting standards   |  | -             | -             | -             | -             | -             |



| Composition of Capital Template <i>continued</i>                      |  | Cross Reference of Current Quarter to Regulatory Capital Balance Sheet (CC2) | Q1/21   | Q4/20   | Q3/20   | Q2/20   | Q1/20   |
|---|--|--|---------|---------|---------|---------|---------|
| (Millions of Canadian dollars, except percentage and otherwise noted) |  |  |         |         |         |         |         |
| 33  | Directly issued capital instruments subject to phase out from Additional Tier 1  | x+n"   | -       | -       | 1,478   | 1,478   | 1,478   |
| 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)  | o  | 3       | 2       | 3       | 3       | 2       |
| 35  | of which: instruments issued by subsidiaries subject to phase out  |  | -       | -       | -       | -       | -       |
| 36  | <b>Additional Tier 1 capital before regulatory adjustments</b>   |  | 7,178   | 5,923   | 7,404   | 5,656   | 5,655   |
| <b>Additional Tier 1 capital: Regulatory adjustments</b>              |  |  |         |         |         |         |         |
| 37  | Investments in own Additional Tier 1 instruments   |  | -       | -       | -       | -       | -       |
| 38  | Reciprocal cross holdings in Additional Tier 1 instruments   |  | -       | -       | -       | -       | -       |
| 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  |  | -       | -       | -       | -       | -       |
| 41  | Other deductions from Tier 1 capital as determined by OSFI   |  | -       | -       | -       | -       | -       |
| 41a   | of which: reverse mortgages  |  | -       | -       | -       | -       | -       |
| 42  | Regulatory adjustments applied to Additional Tier 1 due to insufficient Tier 2 to cover deductions   |  | -       | -       | -       | -       | -       |
| 43  | <b>Total regulatory adjustments to Additional Tier 1 capital</b>   |  | -       | -       | -       | -       | -       |
| 44  | <b>Additional Tier 1 Capital (AT1)</b>   |  | 7,178   | 5,923   | 7,404   | 5,656   | 5,655   |
| 45  | <b>Tier 1 capital (T1 = CET1 + AT1)</b>  |  | 76,733  | 74,005  | 73,536  | 70,854  | 68,709  |
| 45a   | Tier 1 capital with transitional arrangements for ECL provisioning not applied   |  | 75,757  | 72,559  | 72,179  | 69,616  | -       |
| <b>Tier 2 Capital: Instruments and Provisions</b>                     |  |  |         |         |         |         |         |
| 46  | Directly issued qualifying Tier 2 instruments plus related stock surplus   | q"+q""   | 8,005   | 9,049   | 9,078   | 8,932   | 8,451   |
| 47  | Directly issued capital instruments subject to phase out from Tier 2   | q""  | 478     | 488     | 488     | 520     | 508     |
| 48  | Tier 2 instruments (and CET1 and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties (amount allowed in group Tier 2)   | r+q""  | 28      | 29      | 26      | 27      | 27      |
| 49  | of which: instruments issued by subsidiaries subject to phase out  | q""  | 25      | 26      | 23      | 24      | 24      |
| 50  | Collective allowances  | s  | 1,299   | 1,357   | 1,418   | 1,136   | 525     |
| 51  | <b>Tier 2 capital before regulatory adjustments</b>  |  | 9,810   | 10,923  | 11,010  | 10,615  | 9,511   |
| <b>Tier 2 Capital: Regulatory adjustments</b>                         |  |  |         |         |         |         |         |
| 52  | Investments in own Tier 2 instruments  |  | -       | -       | -       | -       | -       |
| 53  | Reciprocal cross holdings in Tier 2 instruments and Other TLAC-eligible Instruments  |  | -       | -       | -       | -       | -       |
| 54  | Non-significant investments in the capital of banking, financial and insurance entities, and Other TLAC-eligible instruments issued by G-SIBs and Canadian D-SIBs that are outside the scope of regulatory consolidation, where the institution does not own more than 10% of the issued common share capital of the entity (amount above 10% threshold) |  | -       | -       | -       | -       | -       |
| 54a   | Non-significant investments in the other TLAC-eligible instruments issued by G-SIBs and Canadian D-SIBs, where the institution does not own more than 10% of the issued common share capital of the entity: amount previously designated for the 5% threshold but that no longer meets the conditions.   |  | -       | -       | -       | -       | -       |
| 55  | Significant investments in the capital of banking, financial and insurance entities and Other TLAC-eligible instruments issued by G-SIBs and Canadian D-SIBs that are outside the scope of regulatory consolidation  |  | -       | -       | -       | -       | -       |
| 56  | Other deductions from Tier 2 capital   |  | -       | -       | -       | -       | -       |
| 57  | <b>Total regulatory adjustments to Tier 2 capital</b>  |  | -       | -       | -       | -       | -       |
| 58  | <b>Tier 2 capital (T2)</b>   |  | 9,810   | 10,923  | 11,010  | 10,615  | 9,511   |
| 59  | <b>Total capital (TC = T1 + T2)</b>  |  | 86,543  | 84,928  | 84,546  | 81,469  | 78,220  |
| 59a   | <b>Total Capital</b> with transitional arrangements for ECL provisioning not applied   |  | 86,543  | 84,928  | 84,546  | 81,469  | -       |
| 60  | <b>Total risk-weighted assets</b>  |  | 557,519 | 546,242 | 551,421 | 558,412 | 523,725 |
| 60a   | <b>Common Equity Tier 1 (CET1) Capital RWA</b>   |  | 557,519 | 546,242 | 551,421 | 558,412 | 523,725 |
| 60b   | <b>Tier 1 Capital RWA</b>  |  | 557,519 | 546,242 | 551,421 | 558,412 | 523,725 |
| 60c   | <b>Total Capital RWA</b>   |  | 557,519 | 546,242 | 551,421 | 558,412 | 523,725 |



| Composition of Capital Template <i>continued</i>   |  | Cross Reference of Current Quarter to Regulatory Capital Balance Sheet (CC2) | Q1/21 | Q4/20 | Q3/20 | Q2/20 | Q1/20 |
|--|--|--|-------|-------|-------|-------|-------|
| (Millions of Canadian dollars, except percentage and otherwise noted)  |  |  |       |       |       |       |       |
| <b>Capital ratios</b>  |  |  |       |       |       |       |       |
| 61   | Common Equity Tier 1 (as a percentage of risk-weighted assets)   |  | 12.5% | 12.5% | 12.0% | 11.7% | 12.0% |
| 61a  | CET1 Ratio with transitional arrangements for ECL provisioning not applied   |  | 12.3% | 12.2% | 11.7% | 11.5% | 0.0%  |
| 62   | Tier 1 (as a percentage of risk-weighted assets)   |  | 13.8% | 13.5% | 13.3% | 12.7% | 13.1% |
| 62a  | Tier 1 Capital Ratio with transitional arrangements for ECL provisioning not applied   |  | 13.6% | 13.3% | 13.1% | 12.5% | 0.0%  |
| 63   | Total capital (as a percentage of risk-weighted assets)  |  | 15.5% | 15.5% | 15.3% | 14.6% | 14.9% |
| 63a  | Total Capital Ratio with transitional arrangements for ECL provisioning not applied  |  | 15.5% | 15.5% | 0.0%  | 14.6% | 0.0%  |
| 64   | Buffer (minimum CET1 requirement plus capital conservation buffer plus G-SIB buffer requirement plus D-SIB buffer expressed as a percentage of risk-weighted assets) |  | 8.0%  | 8.0%  | 8.0%  | 8.0%  | 8.0%  |
| 65   | of which: capital conservation buffer  |  | 2.5%  | 2.5%  | 2.5%  | 2.5%  | 2.5%  |
| 66   | of which: bank-specific countercyclical buffer   |  | 0.0%  | 0.0%  | 0.0%  | 0.0%  | 0.0%  |
| 67   | of which: G-SIB buffer <sup>1</sup>  |  | 1.0%  | 1.0%  | 1.0%  | 1.0%  | 1.0%  |
| 67a  | of which: D-SIB buffer   |  | 0.0%  | 0.0%  | 0.0%  | 0.0%  | 0.0%  |
| 68   | Common Equity Tier 1 available to meet buffers (as a percentage of risk-weighted assets)   |  | 12.5% | 12.5% | 12.0% | 11.7% | 12.0% |
| <b>OSFI target (minimum + capital conservation buffer + D-SIB surcharge (if applicable))</b>                     |  |  |       |       |       |       |       |
| 69   | Common Equity Tier 1 target ratio  |  | 8.0%  | 8.0%  | 8.0%  | 8.0%  | 8.0%  |
| 70   | Tier 1 capital target ratio  |  | 9.5%  | 9.5%  | 9.5%  | 9.5%  | 9.5%  |
| 71   | Total capital target ratio   |  | 11.5% | 11.5% | 11.5% | 11.5% | 11.5% |
| <b>Amounts below the thresholds for deduction (before risk-weighting)</b>  |  |  |       |       |       |       |       |
| 72   | Non-significant investments in the capital and Other TLAC-eligible instruments of other financial entities   |  | 659   | 549   | 995   | 1,276 | 1,242 |
| 73   | Significant investments in the common stock of financials  |  | 5,348 | 5,221 | 5,082 | 4,847 | 4,577 |
| 74   | Mortgage servicing rights (net of related tax liability)   |  | -     | -     | -     | -     | -     |
| 75   | Deferred tax assets arising from temporary differences (net of related tax liability)  |  | 995   | 1,177 | 958   | 1,068 | 915   |
| <b>Applicable caps on the inclusion of allowances in Tier 2</b>  |  |  |       |       |       |       |       |
| 76   | Allowances eligible for inclusion in Tier 2 in respect of exposures subject to standardized approach (prior to application of cap)                                   |  | 1,028 | 1,075 | 1,027 | 964   | 525   |
| 77   | Cap on inclusion of allowances in Tier 2 under standardized approach   |  | 1,028 | 1,075 | 1,027 | 964   | 525   |
| 78   | Allowances eligible for inclusion in Tier 2 in respect of exposures subject to internal ratings-based approach (prior to application of cap)                         |  | 4,159 | 4,271 | 4,151 | 3,976 | 2,183 |
| 79   | Cap on inclusion of allowances in Tier 2 under internal ratings-based approach   |  | 4,159 | 4,271 | 4,151 | 3,976 | 2,183 |
| <b>Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2013 and 1 Jan 2022)</b> |  |  |       |       |       |       |       |
| 80   | Current cap on CET1 instruments subject to phase out arrangements  |  | -     | -     | -     | -     | -     |
| 81   | Amounts excluded from CET1 due to cap (excess over cap after redemptions and maturities)   |  | -     | -     | -     | -     | -     |
| 82   | Current cap on AT1 instruments subject to phase out arrangements   |  | 739   | 1,478 | 1,478 | 1,478 | 1,478 |
| 83   | Amounts excluded from AT1 due to cap (excess over cap after redemptions and maturities)  |  | -     | -     | 22    | 22    | 22    |
| 84   | Current cap on T2 instruments subject to phase out arrangements  |  | 919   | 1,838 | 1,838 | 1,838 | 1,838 |
| 85   | Amounts excluded from T2 due to cap (excess over cap after redemptions and maturities)   |  | -     | -     | -     | -     | -     |

<sup>1</sup> Capital surcharge, equal to the higher of our D-SIB surcharge and the BCBS's G-SIB surcharge, is applicable to risk-weighted capital.



## CC2: Regulatory capital balance sheet

The following table provides a reconciliation of our regulatory capital elements as reported in CC1 with our balance sheet prepared in accordance with IFRS and our regulatory balance sheet.

| Regulatory capital balance sheet<br>(Millions of Canadian dollars)  | Cross Reference to Basel III Regulatory Capital Components (CC1) | Q1/21                                      |   |
|---|--|--|---|
|   |  | Balance sheet as in Report to Shareholders | Under regulatory scope of consolidation |
| <b>Assets</b>   |  |  |   |
| Cash and due from banks   |  | 149,588                                    | 149,588                                 |
| Interest-bearing deposits with banks  |  | 33,731                                     | 33,731                                  |
| Securities, net of applicable allowance   |  | 287,482                                    | 273,095                                 |
| <i>Non-significant investments in capital of other financial institutions not exceeding regulatory thresholds</i> |  |  | 659                                     |
| <i>Other securities</i>   |  |  | 272,437                                 |
| Assets purchased under reverse repurchase agreements and securities borrowed                                      |  | 311,033                                    | 311,033                                 |
| Loans   |  |  | -                                       |
| Retail  |  | 464,579                                    | 464,234                                 |
| Wholesale   |  | 213,462                                    | 211,058                                 |
| Allowance for loan losses   |  | (5,478)                                    | (5,478)                                 |
| <i>Collective allowance reflected in Tier 2 regulatory capital <sup>1</sup></i>                                   | s  |  | (1,299)                                 |
| <i>Shortfall of allowances to expected loss <sup>2</sup></i>  | i  |  | -                                       |
| <i>Allowances not reflected in regulatory capital</i>   |  |  | (4,179)                                 |
|   |  | 672,563                                    | 669,814                                 |
| Segregated fund net assets  |  | 2,127                                      | -                                       |
| Other   |  |  |   |
| Customers' liability under acceptances  |  | 18,756                                     | 18,756                                  |
| Derivatives   |  | 110,917                                    | 111,676                                 |
| Premises and equipment, net   |  | 7,835                                      | 7,817                                   |
| Goodwill  | e  | 11,085                                     | 11,085                                  |
| <i>Goodwill related to insurance and joint ventures</i>   | e'   |  | -                                       |
| Other intangibles   | f  | 4,633                                      | 4,514                                   |
| <i>Other intangibles related to insurance and joint ventures</i>  | f'   |  | 119                                     |
| Other   |  | 61,401                                     | 64,337                                  |
| <i>Significant investments in other financial institutions and insurance subsidiaries</i>                         |  |  | 5,348                                   |
| <i>of which: exceeding regulatory thresholds</i>  | l  |  | -                                       |
| <i>of which: not exceeding regulatory thresholds</i>  |  |  | 5,348                                   |
| <i>Defined - benefit pension fund net assets</i>  | k  |  | 907                                     |
| <i>Deferred tax assets</i>  |  |  | 2,194                                   |
| <i>of which: deferred tax assets excluding those arising from temporary differences</i>                           | g  |  | 184                                     |
| <i>of which: deferred tax assets arising from temporary differences exceeding regulatory thresholds</i>           | m  |  | -                                       |
| <i>of which: deferred tax liabilities related to permitted tax netting</i>  |  |  | (1,019)                                 |
| <i>of which: deferred tax assets - other temporary differences</i>  |  |  | 3,029                                   |
| <i>Other assets</i>   |  |  | 55,888                                  |
| <i>of which: relates to assets of operations held for sale – Goodwill</i>   | m'   |  | 15                                      |
| <b>Total assets</b>   |  | <b>1,671,151</b>                           | <b>1,655,446</b>                        |

<sup>1</sup> Collective allowance includes Stage 1 and Stage 2 ACL on financial assets.

<sup>2</sup> Expected loss as defined under the Basel III framework.



| Regulatory capital balance sheet <i>continued</i>  | Cross Reference to Basel III Regulatory Capital Components (CC1) | Q1/21                                      |   |
|--|--|--|---|
|  |  | Balance sheet as in Report to Shareholders | Under regulatory scope of consolidation |
| (Millions of Canadian dollars)   |  |  |   |
| <b>Liabilities</b>   |  |  |   |
| Deposits   |  |  |   |
| Personal   |  | 348,304                                    | 348,304                                 |
| Business and government  |  | 660,064                                    | 660,802                                 |
| Bank   |  | 46,229                                     | 46,229                                  |
|  |  | 1,054,597                                  | 1,055,335                               |
| Segregated fund net liabilities  |  | 2,127                                      | -                                       |
| Other  |  |  | -                                       |
| Acceptances  |  | 18,881                                     | 18,881                                  |
| Obligations related to securities sold short   |  | 32,569                                     | 32,569                                  |
| Obligations related to assets sold under repurchase agreements and securities loaned       |  | 274,907                                    | 274,907                                 |
| Derivatives  |  | 106,071                                    | 106,071                                 |
| Insurance claims and policy benefit liabilities  |  | 12,754                                     | -                                       |
| Other liabilities  |  | 69,810                                     | 68,195                                  |
| <i>Gains and losses due to changes in own credit risk on fair value liabilities</i>        | j  |  | (474)                                   |
| <i>Deferred tax liabilities</i>  |  |  | 54                                      |
| <i>of which: related to goodwill</i>   | t  |  | 116                                     |
| <i>of which: related to intangibles</i>  | v  |  | 728                                     |
| <i>of which: related to pensions</i>   | u  |  | 234                                     |
| <i>of which: relates to permitted tax netting</i>  |  |  | (1,019)                                 |
| <i>of which: other deferred tax liabilities</i>  |  |  | -                                       |
| <i>Other Liabilities</i>   |  |  | 68,615                                  |
| Subordinated debentures  | q  | 9,186                                      | 9,186                                   |
| <i>Regulatory capital amortization of maturing debentures</i>                              | q <sup>****</sup>  |  | (384)                                   |
| <i>Subordinated debentures not allowed for regulatory capital</i>                          | q'   |  | 678                                     |
| <i>Subordinated debentures used for regulatory capital:</i>                                |  |  | 8,892                                   |
| <i>of which: are qualifying</i>  | q''  |  | 8,389                                   |
| <i>of which: are subject to phase out directly issued capital:</i>                         | q'''   |  | 478                                     |
| <i>of which: are subject to phase out issued by subsidiaries and held by 3rd party</i>     | q <sup>****</sup>  |  | 25                                      |
| <b>Total liabilities</b>   |  | <b>1,580,902</b>                           | <b>1,565,144</b>                        |
| <b>Equity attributable to shareholders</b>   |  | <b>90,149</b>                              | <b>90,202</b>                           |
| <b>Common shares</b>   | a  | 17,638                                     | 17,638                                  |
| <i>of which are treasury - common shares</i>   | a''  |  | (26)                                    |
| <b>Retained earnings</b>   |  | 62,751                                     | 62,774                                  |
| <i>of which relates to contributed surplus</i>   | a'   |  | 245                                     |
| <i>of which relates to retained earnings for capital purposes</i>                          | b  |  | 62,527                                  |
| <i>of which relates to insurance and joint ventures</i>                                    | b'   |  | (22)                                    |
| <b>Other components of equity</b>  | c  | 2,545                                      | 2,575                                   |
| <i>Gains and losses on derivatives designated as cash flow hedges</i>                      | h  |  | (907)                                   |
| <i>Unrealized foreign currency translation gains and losses, net of hedging activities</i> |  |  | 3,256                                   |
| <i>Other reserves allowed for regulatory capital</i>                                       |  |  | 226                                     |
| <i>of which relates to Insurance</i>   | c'   |  | 30                                      |
| <b>Preferred shares and other equity instruments</b>                                       | n  | 7,215                                      | 7,215                                   |
| <i>of which: are qualifying</i>  | n'   |  | 7,175                                   |
| <i>of which: are subject to phase out</i>  | n''  |  | -                                       |
| <i>of which portion are not allowed for regulatory capital</i>                             |  |  | 23                                      |
| <i>of which: are qualifying treasury - preferred shares</i>                                | n'''   |  | 17                                      |
| <i>of which: are subject to phase out treasury - preferred shares</i>                      |  |  | -                                       |



| Regulatory capital balance sheet <i>continued</i>           | Cross Reference to Basel III Regulatory Capital Components (CC1) | Q1/21                                      |   |
|---|--|--|---|
|   |  | Balance sheet as in Report to Shareholders | Under regulatory scope of consolidation |
| (Millions of Canadian dollars)                              |  |  |   |
| <b>Non-controlling interests</b>                            |  | <b>100</b>                                 | <b>100</b>                              |
| <i>of which: are qualifying</i>                             |  |  | -                                       |
| <i>portion allowed for inclusion into CET1</i>              | <b>d</b>   |  | 12                                      |
| <i>portion allowed for inclusion into Tier 1 capital</i>    | <b>o</b>   |  | 3                                       |
| <i>portion allowed for inclusion into Tier 2 capital</i>    | <b>r</b>   |  | 3                                       |
| <i>of which: are subject to phase out</i>                   | <b>x</b>   |  | -                                       |
| <i>of which: portion not allowed for regulatory capital</i> |  |  | 82                                      |
| <b>Total equity</b>   |  | <b>90,249</b>                              | <b>90,302</b>                           |
| <b>Total liabilities and equity</b>                         |  | <b>1,671,151</b>                           | <b>1,655,446</b>                        |

|  |   | Equity | Assets |
|--|---|--------|--------|
| <b>Insurance subsidiaries <sup>1</sup></b>     | <b>Principal activities</b>   |        |        |
| Assured Assistance Inc.                        | Service provider for insurance claims   | 1      | -      |
| Royal Bank of Canada Insurance Company Limited | Life, annuity, trade credit, title and property reinsurance company provides coverage to international clients                                    | 1,880  | 688    |
| RBC (Barbados) Services Comp                   | The company provides investment management, reinsurance transaction support and corporate services to Royal Bank of Canada Insurance Company Ltd. | -      | -      |
| RBC Insurance Agency Ltd.                      | Distribution of H&A products through AVIVA  | 14     | 35     |
| RBC Insurance Company (Cayman) Limited         | Life, annuity reinsurance company provides coverage to international clients  | 76     | -      |
| RBC Insurance Company of Canada                | Property and casualty insurance company   | 85     | 118    |
| RBC Insurance Holdings Inc.                    | Holding company   | 1      | -      |
| RBC Insurance Services Inc.                    | Service provider for insurance companies listed and the bank (creditor)   | 61     | 64     |
| RBC Life Insurance Company                     | Life and health insurance company   | 2,947  | 19,865 |
|  |   | 5,065  | 20,770 |

<sup>1</sup> The list of legal entities that are included within the accounting scope of consolidation but excluded from the regulatory scope of consolidation.



**CREDIT RISK**

**CRA: General qualitative information about credit risk**

The table below presents an overview of Pillar 3 disclosure requirements that have been met within our 2020 Annual Report and incorporated by reference into this Pillar 3 report. Our 2020 Annual Report is available free of charge on our website at <http://www.rbc.com/investorrelations>

| Pillar 3 disclosures requirement |  | RBC 2020 Annual Report section | Sub-section  |
|----------------------------------|--|--------------------------------|--|
| a)                               | Translation of the business model into the components of the bank's credit risk profile                              | Credit risk                    | Overview   |
|                                  |  |                                | Measurement of economic and regulatory capital - <i>Gross credit risk exposure</i> |
| b)                               | Criteria and approach used for defining credit risk management policy and for setting credit risk limits             | Enterprise risk management     | Risk governance  |
|                                  |  |                                | Risk appetite  |
|                                  |  |                                | Risk measurement   |
|                                  |  |                                | Risk control – <i>Delegated authorities and risk limits</i>                        |
|                                  |  | Credit risk                    | Overview   |
|                                  |  |                                | Credit risk assessment   |
|                                  |  |                                | Credit risk mitigation   |
|                                  |  |                                | Credit risk approval   |
| c)                               | Structure and organization of the credit risk management and control function  | Enterprise risk management     | Risk governance  |
|                                  |  |                                | Risk control   |
| d)                               | Interaction between the credit risk management, risk control, compliance and internal audit functions                | Enterprise risk management     | Risk governance  |
| e)                               | Scope and content of the reporting on credit risk exposure to the executive management and to the board of directors | Enterprise risk management     | Risk governance  |
|                                  |  |                                | Risk control – <i>Risk monitoring and reporting</i>                                |

**CR1: Credit quality of assets**

The following table presents a comprehensive view of the credit quality of our on- and off-balance sheet assets.

As at January 31, 2021

|   |  | a                                   | b                          | c                                       | d  |   | e  | f                     | g |
|---|--|-------------------------------------|----------------------------|---|--|---|--|-----------------------|---|
|   |  | Gross carrying values of            |                            | Allowances/<br>impairments <sup>2</sup> | Of which ECL accounting<br>provisions on SA exposures              |   | Of which ECL<br>accounting<br>provisions on<br>IRB exposures | Net values<br>(a+b-c) |   |
|   |  | Defaulted<br>exposures <sup>1</sup> | Non-defaulted<br>exposures |   | Allocated in<br>regulatory<br>category of<br>Specific <sup>3</sup> | Allocated in<br>regulatory<br>category of<br>General <sup>3</sup> |  |                       |   |
|   | (Millions of Canadian dollars)           |                                     |                            |   |  |   |  |                       |   |
| 1 | Loans                                    | 2,637                               | 652,378                    | 5,478                                   | 143  | 1,013   | 4,322  | 649,537               |   |
| 2 | Debt Securities                          | -                                   | 127,853                    | 31                                      | -  | 11  | 20   | 127,822               |   |
| 3 | Off-Balance Sheet exposures <sup>4</sup> | 460                                 | 262,514                    | 408                                     | -  | 4   | 406  | 262,566               |   |
| 4 | <b>Total</b>                             | <b>3,097</b>                        | <b>1,042,745</b>           | <b>5,917</b>                            | <b>143</b>   | <b>1,028</b>  | <b>4,748</b>   | <b>1,039,925</b>      |   |

<sup>1</sup> Definition of default as per the CAR guidelines and recent OSFI COVID-19 guidance.

<sup>2</sup> Reflects Stage 1, 2 and 3 allowances under IFRS 9.

<sup>3</sup> Regulatory category of specific allowance reflects IFRS 9 Stage 3 allowances. Regulatory category of general allowances reflects Stage 1 & 2 allowances.

<sup>4</sup> Off balance sheet amounts are before the application of credit conversion factors and reflect guarantees given and irrevocable loan commitments. Revocable loan commitments are excluded as per BCBS requirements.

As at October 31, 2020

|   |  | a                                   | b                          | c                                       | d  |   | e  | f                     | g |
|---|--|-------------------------------------|----------------------------|---|--|---|--|-----------------------|---|
|   |  | Gross carrying values of            |                            | Allowances/<br>impairments <sup>2</sup> | Of which ECL accounting<br>provisions on SA exposures              |   | Of which ECL<br>accounting<br>provisions on<br>IRB exposures | Net values<br>(a+b-c) |   |
|   |  | Defaulted<br>exposures <sup>1</sup> | Non-defaulted<br>exposures |   | Allocated in<br>regulatory<br>category of<br>Specific <sup>3</sup> | Allocated in<br>regulatory<br>category of<br>General <sup>3</sup> |  |                       |   |
|   | (Millions of Canadian dollars)           |                                     |                            |   |  |   |  |                       |   |
| 1 | Loans                                    | 3,206                               | 635,654                    | 5,639                                   | 94   | 1,061   | 4,484  | 633,221               |   |
| 2 | Debt Securities                          | -                                   | 127,091                    | 37                                      | -  | 10  | 27   | 127,054               |   |
| 3 | Off-Balance Sheet exposures <sup>4</sup> | 637                                 | 261,727                    | 472                                     | -  | 4   | 470  | 261,892               |   |
| 4 | <b>Total</b>                             | <b>3,843</b>                        | <b>1,024,472</b>           | <b>6,148</b>                            | <b>94</b>  | <b>1,075</b>  | <b>4,981</b>   | <b>1,022,167</b>      |   |

<sup>1</sup> Definition of default as per the CAR guidelines and recent OSFI COVID-19 guidance.

<sup>2</sup> Reflects Stage 1, 2 and 3 allowances under IFRS 9.

<sup>3</sup> Regulatory category of specific allowance reflects IFRS 9 Stage 3 allowances. Regulatory category of general allowances reflects Stage 1 & 2 allowances.

<sup>4</sup> Off balance sheet amounts are before the application of credit conversion factors and reflect guarantees given and irrevocable loan commitments. Revocable loan commitments are excluded as per BCBS requirements.



**CRB: Additional disclosure related to the credit quality of assets**

The table below presents an overview of Pillar 3 disclosure requirements that have been met within our 2020 Annual Report and incorporated by reference into this Pillar 3 report. Our 2020 Annual Report is available free of charge on our website at <http://www.rbc.com/investorrelations>

|    | Pillar 3 disclosures requirement   | RBC 2020 Annual Report section               | Sub-section   |
|----|--|--|---|
| a) | Definitions of past due and impaired exposures   | Consolidated Financial Statements            | Note 2 - Summary of significant accounting policies, estimates and judgments<br>Allowance for credit losses -<br>Definition of default<br>Credit impaired financial assets (Stage 3)<br><br>Note 5 – Loans and allowances for credit losses<br>Loans past due but not impaired  |
| b) | Extent of past due exposures   | Consolidated Financial Statements            | Note 5 – Loans and allowances for credit losses<br>Loans past due but not impaired  |
| c) | Description of methods used for determining accounting provisions for credit losses<br><br>Description of the categorization of ECL accounting provisions (general and specific) for standardized approach exposures | Consolidated Financial Statements<br><br>n/a | Note 2 - Summary of significant accounting policies, estimates and judgments<br>Allowance for credit losses<br><br>n/a - For regulatory calculations under both the Standardized and IRB approaches, the IFRS 9 stage 3 allowances are considered to be specific allowances and the IFRS 9 stage 1 and stage 2 allowances are considered to be general allowances |
| d) | Definition of a restructured exposure  | Consolidated Financial Statements            | Note 2 - Summary of significant accounting policies, estimates and judgments<br>Allowance for credit losses -<br>Modifications  |

**CRB: Additional disclosure related to the credit quality of assets (continued)**
*(e) Breakdown of exposures by geographical areas, industry and residual maturity*

The following table provides a breakdown of our credit risk exposures by industry, geographical areas and residual maturity. Our classification below reflects the Basel regulatory defined exposure classes. Amounts shown below reflect Exposures at default (EAD), which is the amount expected to be owed by an obligor at the time of default.

As at January 31, 2021

| (Millions of Canadian dollars)      | a                       | b                          | c                                     | d                                     | e                      |
|-------------------------------------|-------------------------|----------------------------|---------------------------------------|---------------------------------------|------------------------|
|                                     | On-balance sheet amount | Credit Risk <sup>1,2</sup> |                                       | Counterparty Credit Risk <sup>5</sup> |                        |
|                                     |                         | Undrawn                    | Off-balance sheet amount <sup>3</sup> | Other <sup>4</sup>                    | Repo-style Transaction |
| <b>Retail</b>                       |                         |                            |                                       |                                       |                        |
| Residential secured <sup>6</sup>    | 343,318                 | 91,244                     |                                       |                                       |                        |
| Qualifying revolving                | 29,198                  | 90,252                     |                                       |                                       |                        |
| Other retail                        | 77,119                  | 18,364                     | 139                                   |                                       |                        |
| <b>Total Retail</b>                 | <b>449,635</b>          | <b>199,860</b>             | <b>139</b>                            |                                       |                        |
| <b>Wholesale</b>                    |                         |                            |                                       |                                       |                        |
| Agriculture                         | 9,117                   | 1,575                      | 33                                    | -                                     | 86                     |
| Automotive                          | 7,023                   | 7,964                      | 274                                   | -                                     | 991                    |
| Banking                             | 42,881                  | 1,472                      | 552                                   | 45,168                                | 21,624                 |
| Consumer Discretionary              | 13,252                  | 8,830                      | 473                                   | -                                     | 852                    |
| Consumer Staples                    | 5,164                   | 6,809                      | 218                                   | -                                     | 1,360                  |
| Oil & Gas                           | 7,414                   | 10,582                     | 1,667                                 | -                                     | 2,838                  |
| Financial Services                  | 34,836                  | 22,628                     | 2,853                                 | 123,334                               | 21,046                 |
| Financing Products                  | 4,209                   | 885                        | 501                                   | 138                                   | 1,352                  |
| Forest Products                     | 1,040                   | 915                        | 141                                   | -                                     | 30                     |
| Governments                         | 269,849                 | 4,597                      | 1,616                                 | 40,282                                | 6,130                  |
| Industrial Products                 | 6,681                   | 8,727                      | 706                                   | -                                     | 884                    |
| Information Technology              | 3,729                   | 5,835                      | 272                                   | -                                     | 5,054                  |
| Investments                         | 18,229                  | 2,967                      | 424                                   | 9                                     | 93                     |
| Mining & Metals                     | 1,560                   | 3,902                      | 974                                   | -                                     | 248                    |
| Public Works & Infrastructure       | 1,288                   | 1,988                      | 432                                   | -                                     | 231                    |
| Real Estate & Related               | 72,543                  | 13,775                     | 1,476                                 | -                                     | 1,405                  |
| Other Services                      | 22,609                  | 11,179                     | 1,281                                 | 4                                     | 1,607                  |
| Telecommunication & Media           | 5,231                   | 7,685                      | 79                                    | -                                     | 1,963                  |
| Transportation                      | 7,187                   | 5,369                      | 1,420                                 | -                                     | 1,294                  |
| Utilities                           | 8,662                   | 18,263                     | 3,927                                 | -                                     | 3,291                  |
| Other Sectors                       | 1,404                   | 731                        | 3                                     | 23                                    | 7,307                  |
| <b>Total Wholesale</b>              | <b>543,908</b>          | <b>146,678</b>             | <b>19,322</b>                         | <b>208,958</b>                        | <b>79,686</b>          |
| <b>Total Exposure<sup>1</sup></b>   | <b>993,543</b>          | <b>346,538</b>             | <b>19,461</b>                         | <b>208,958</b>                        | <b>79,686</b>          |
| <b>By Geography<sup>7</sup></b>     |                         |                            |                                       |                                       |                        |
| Canada                              | 697,532                 | 255,870                    | 8,035                                 | 95,829                                | 25,397                 |
| United States                       | 192,154                 | 63,951                     | 7,886                                 | 47,910                                | 24,752                 |
| Europe                              | 60,869                  | 21,682                     | 2,263                                 | 45,072                                | 22,212                 |
| Other International                 | 42,988                  | 5,035                      | 1,277                                 | 20,147                                | 7,325                  |
| <b>Total Exposure<sup>1,7</sup></b> | <b>993,543</b>          | <b>346,538</b>             | <b>19,461</b>                         | <b>208,958</b>                        | <b>79,686</b>          |
| <b>By Maturity</b>                  |                         |                            |                                       |                                       |                        |
| Unconditionally cancellable         | 69,496                  | 224,855                    | 132                                   | -                                     | -                      |
| Within 1 year                       | 379,909                 | 27,491                     | 10,854                                | 208,958                               | 36,846                 |
| 1 to 5 year                         | 467,216                 | 89,023                     | 7,664                                 | -                                     | 26,564                 |
| Over 5 years                        | 76,922                  | 5,169                      | 811                                   | -                                     | 16,276                 |
| <b>Total Exposure<sup>1</sup></b>   | <b>993,543</b>          | <b>346,538</b>             | <b>19,461</b>                         | <b>208,958</b>                        | <b>79,686</b>          |

<sup>1</sup> Excludes securitization, banking book equities and other assets not subject to standardized or IRB approach. Also excludes exposures acquired through the US Government Paycheck Protection Program (PPP). In Q1 2021, \$10 billion of Small Business Corporate exposures were reclassified from Wholesale to Other Retail to align with CAR guidelines threshold as under \$1.25 million being Small Business retail. Refer to CR 6 for further details.

<sup>2</sup> EAD for Standardized exposures are reported net of Stage 3 allowances and EAD for IRB exposures are reported gross of all allowances for credit loss and partial write-off as per regulatory definitions.

<sup>3</sup> EAD for Undrawn credit commitments and other off-balance sheet amounts are reported after the application of credit conversion factors.

<sup>4</sup> Includes other off-balance sheet exposures such as letters of credit & guarantees.

<sup>5</sup> Counterparty credit risk EAD reflects exposure amount after netting. Collateral is included in EAD for repo-style transactions to the extent allowed by regulatory guidelines. Exchange traded derivatives are included in Other Sectors.

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

<sup>7</sup> Geographic profile is based on the country of residence of the borrower.

**CRB: Additional disclosure related to the credit quality of assets (continued)**

As at October 31, 2020

| (Millions of Canadian dollars)      | a                          | b                                     | c             | d                                     | e             |
|-------------------------------------|----------------------------|---------------------------------------|---------------|---------------------------------------|---------------|
|                                     | Credit Risk <sup>1,2</sup> |                                       |               | Counterparty Credit Risk <sup>5</sup> |               |
|                                     | On-balance sheet amount    | Off-balance sheet amount <sup>3</sup> |               | Repo-style Transaction                | Derivatives   |
|                                     | Undrawn                    | Other <sup>4</sup>                    |               |                                       |               |
| <b>Retail</b>                       |                            |                                       |               |                                       |               |
| Residential secured <sup>6</sup>    | 338,653                    | 88,728                                |               |                                       |               |
| Qualifying revolving                | 24,328                     | 67,779                                |               |                                       |               |
| Other retail                        | 68,325                     | 14,183                                | 67            |                                       |               |
| <b>Total Retail</b>                 | <b>431,306</b>             | <b>170,690</b>                        | <b>67</b>     |                                       |               |
| <b>Wholesale</b>                    |                            |                                       |               |                                       |               |
| Agriculture                         | 9,560                      | 1,854                                 | 34            | -                                     | 108           |
| Automotive                          | 8,410                      | 7,564                                 | 289           | -                                     | 791           |
| Banking                             | 39,228                     | 1,501                                 | 562           | 42,745                                | 19,891        |
| Consumer Discretionary              | 14,436                     | 9,303                                 | 510           | -                                     | 649           |
| Consumer Staples                    | 6,069                      | 6,945                                 | 538           | -                                     | 1,252         |
| Oil & Gas                           | 7,800                      | 10,779                                | 1,600         | -                                     | 2,492         |
| Financial Services                  | 32,853                     | 22,257                                | 3,256         | 109,772                               | 21,162        |
| Financing Products                  | 3,755                      | 1,098                                 | 522           | 90                                    | 1,055         |
| Forest Products                     | 1,155                      | 851                                   | 125           | -                                     | 41            |
| Governments                         | 245,204                    | 4,727                                 | 1,624         | 43,806                                | 6,963         |
| Industrial Products                 | 6,962                      | 9,397                                 | 723           | -                                     | 801           |
| Information Technology              | 4,632                      | 5,073                                 | 257           | 13                                    | 3,898         |
| Investments                         | 17,636                     | 2,963                                 | 437           | 13                                    | 230           |
| Mining & Metals                     | 1,692                      | 3,930                                 | 979           | -                                     | 338           |
| Public Works & Infrastructure       | 1,345                      | 2,007                                 | 340           | -                                     | 239           |
| Real Estate & Related               | 72,006                     | 13,729                                | 1,573         | -                                     | 1,180         |
| Other Services                      | 24,965                     | 12,285                                | 1,336         | 5                                     | 1,857         |
| Telecommunication & Media           | 4,987                      | 7,451                                 | 83            | -                                     | 1,752         |
| Transportation                      | 7,492                      | 5,612                                 | 1,533         | -                                     | 1,714         |
| Utilities                           | 8,739                      | 18,705                                | 3,849         | -                                     | 3,852         |
| Other Sectors                       | 1,699                      | 647                                   | 1             | 17                                    | 9,291         |
| <b>Total Wholesale</b>              | <b>520,625</b>             | <b>148,678</b>                        | <b>20,171</b> | <b>196,461</b>                        | <b>79,556</b> |
| <b>Total Exposure<sup>1</sup></b>   | <b>951,931</b>             | <b>319,368</b>                        | <b>20,238</b> | <b>196,461</b>                        | <b>79,556</b> |
| <b>By Geography<sup>7</sup></b>     |                            |                                       |               |                                       |               |
| Canada                              | 655,560                    | 227,837                               | 9,595         | 84,761                                | 27,044        |
| United States                       | 199,705                    | 63,423                                | 6,404         | 41,938                                | 23,142        |
| Europe                              | 50,940                     | 21,158                                | 2,312         | 43,754                                | 22,429        |
| Other International                 | 45,726                     | 6,950                                 | 1,927         | 26,008                                | 6,941         |
| <b>Total Exposure<sup>1,7</sup></b> | <b>951,931</b>             | <b>319,368</b>                        | <b>20,238</b> | <b>196,461</b>                        | <b>79,556</b> |
| <b>By Maturity</b>                  |                            |                                       |               |                                       |               |
| Unconditionally cancellable         | 65,676                     | 199,989                               | 60            | -                                     | -             |
| Within 1 year                       | 359,974                    | 26,070                                | 11,797        | 196,461                               | 36,516        |
| 1 to 5 year                         | 450,881                    | 88,382                                | 6,857         | -                                     | 26,240        |
| Over 5 years                        | 75,400                     | 4,927                                 | 1,524         | -                                     | 16,800        |
| <b>Total Exposure<sup>1</sup></b>   | <b>951,931</b>             | <b>319,368</b>                        | <b>20,238</b> | <b>196,461</b>                        | <b>79,556</b> |

<sup>1</sup> Excludes securitization, banking book equities and other assets not subject to standardized or IRB approach. Also excludes exposures acquired through the US Government Paycheck Protection Program (PPP).

<sup>2</sup> EAD for Standardized exposures are reported net of Stage 3 allowances and EAD for IRB exposures are reported gross of all allowances for credit loss and partial write-off as per regulatory definitions.

<sup>3</sup> EAD for Undrawn credit commitments and other off-balance sheet amounts are reported after the application of credit conversion factors.

<sup>4</sup> Includes other off-balance sheet exposures such as letters of credit & guarantees.

<sup>5</sup> Counterparty credit risk EAD reflects exposure amount after netting. Collateral is included in EAD for repo-style transactions to the extent allowed by regulatory guidelines. Exchange traded derivatives are included in Other Sectors.

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

<sup>7</sup> Geographic profile is based on the country of residence of the borrower. Amounts have been revised from those previously presented.

**CRB: Additional disclosure related to the credit quality of assets (continued)**

(f) Amounts of impaired exposures (according to the definition used by the bank for accounting purposes) and related allowances and write-offs, broken down by geographical areas and industry

The following tables provide a breakdown of impaired exposures by geographical areas and industry.

As at January 31, 2021

| Impaired exposures by geography <sup>1</sup> and portfolio<br>(Millions of Canadian dollars) | Gross impaired exposures | Allowance <sup>2</sup> | Net impaired exposures |
|--|--------------------------|------------------------|------------------------|
| <b>Canada</b>  |                          |                        |                        |
| Retail   | 768                      | 195                    | 573                    |
| Wholesale  | 708                      | 215                    | 493                    |
| Securities   | -                        | -                      | -                      |
| <b>Total - Canada</b>  | <b>1,476</b>             | <b>410</b>             | <b>1,066</b>           |
| <b>United States</b>   |                          |                        |                        |
| Retail   | 27                       | 1                      | 26                     |
| Wholesale  | 677                      | 175                    | 502                    |
| Securities   | -                        | -                      | -                      |
| <b>Total - United States</b>   | <b>704</b>               | <b>176</b>             | <b>528</b>             |
| <b>Other International</b>   |                          |                        |                        |
| Retail   | 215                      | 116                    | 99                     |
| Wholesale  | 477                      | 192                    | 285                    |
| Securities   | 152                      | (5)                    | 157                    |
| <b>Total - Other International</b>   | <b>844</b>               | <b>303</b>             | <b>541</b>             |
| <b>Total</b>   |                          |                        |                        |
| Retail   | 1,010                    | 312                    | 698                    |
| Wholesale  | 1,862                    | 582                    | 1,280                  |
| Securities   | 152                      | (5)                    | 157                    |
| <b>Total impaired exposures</b>  | <b>3,024</b>             | <b>889</b>             | <b>2,135</b>           |

<sup>1</sup> Geographic information is based on residence of borrower.

<sup>2</sup> Allowance reflects only Stage 3 IFRS 9 allowances and includes allowances on acquired credit-impaired loans and securities.

As at October 31, 2020

| Impaired exposures by geography <sup>1</sup> and portfolio<br>(Millions of Canadian dollars) | Gross impaired exposures | Allowance <sup>2</sup> | Net impaired exposures |
|--|--------------------------|------------------------|------------------------|
| <b>Canada</b>  |                          |                        |                        |
| Retail   | 692                      | 164                    | 528                    |
| Wholesale  | 754                      | 220                    | 534                    |
| Securities   | -                        | -                      | -                      |
| <b>Total - Canada</b>  | <b>1,446</b>             | <b>384</b>             | <b>1,062</b>           |
| <b>United States</b>   |                          |                        |                        |
| Retail   | 32                       | 1                      | 31                     |
| Wholesale  | 1,039                    | 267                    | 772                    |
| Securities   | -                        | -                      | -                      |
| <b>Total - United States</b>   | <b>1,071</b>             | <b>268</b>             | <b>803</b>             |
| <b>Other International</b>   |                          |                        |                        |
| Retail   | 216                      | 116                    | 100                    |
| Wholesale  | 462                      | 181                    | 281                    |
| Securities   | 157                      | (4)                    | 161                    |
| <b>Total - Other International</b>   | <b>835</b>               | <b>293</b>             | <b>542</b>             |
| <b>Total</b>   |                          |                        |                        |
| Retail   | 940                      | 281                    | 659                    |
| Wholesale  | 2,255                    | 668                    | 1,587                  |
| Securities   | 157                      | (4)                    | 161                    |
| <b>Total impaired exposures</b>  | <b>3,352</b>             | <b>945</b>             | <b>2,407</b>           |

<sup>1</sup> Geographic information is based on residence of borrower.

<sup>2</sup> Allowance reflects only Stage 3 IFRS 9 allowances and includes allowances on acquired credit-impaired loans and securities.



**CRB: Additional disclosure related to the credit quality of assets (continued)**

| Net write-offs by geography <sup>1</sup> and portfolio<br>(Millions of Canadian dollars) | For the three months ended<br>January 31, 2021 | For the three months ended<br>October 31, 2020 |
|--|--|--|
| <b>Canada</b>  |  |  |
| Retail   | 138  | 171  |
| Wholesale  | 26   | 17   |
| <b>Total Canada</b>  | <b>164</b>                                     | <b>188</b>                                     |
| <b>United States<sup>2</sup></b>   |  |  |
| Retail   | -  | 3  |
| Wholesale  | 54   | 99   |
| <b>Total United States</b>   | <b>54</b>                                      | <b>102</b>                                     |
| <b>Other International</b>   |  |  |
| Retail   | 2  | 6  |
| Wholesale <sup>2</sup>   | 6  | 5  |
| <b>Total Other International</b>   | <b>8</b>                                       | <b>11</b>                                      |
| <b>Total</b>   |  |  |
| Retail   | 140  | 180  |
| Wholesale  | 86   | 121  |
| <b>Total net write-offs</b>  | <b>226</b>                                     | <b>301</b>                                     |

<sup>1</sup> Geographic information is based on residence of borrower.

<sup>2</sup> Includes acquired credit-impaired loans related to the acquisition of City National.

**CRB: Additional disclosure related to the credit quality of assets (continued)**

As at January 31, 2021

| <b>Impaired exposures by portfolio and sector</b><br>(Millions of Canadian dollars) | Gross impaired exposures | Allowance <sup>1</sup> | Net impaired exposures |
|---|--------------------------|------------------------|------------------------|
| <b>Retail</b>   |                          |                        |                        |
| Residential mortgages   | 678                      | 158                    | 520                    |
| Personal  | 242                      | 118                    | 124                    |
| Small business  | 90                       | 36                     | 54                     |
| <b>Total Retail</b>   | <b>1,010</b>             | <b>312</b>             | <b>698</b>             |
| <b>Wholesale</b>  |                          |                        |                        |
| Agriculture   | 62                       | 9                      | 53                     |
| Automotive  | 22                       | 14                     | 8                      |
| Banking   | 2                        | -                      | 2                      |
| Consumer Discretionary  | 276                      | 65                     | 211                    |
| Consumer Staples  | 95                       | 14                     | 81                     |
| Oil and Gas   | 333                      | 175                    | 158                    |
| Financial Services  | 77                       | 23                     | 54                     |
| Financial Products  | -                        | -                      | -                      |
| Forest Products   | 12                       | 9                      | 3                      |
| Governments   | 13                       | 2                      | 11                     |
| Industrial Products   | 57                       | 17                     | 40                     |
| Information Technology  | 7                        | 2                      | 5                      |
| Investments   | 44                       | 2                      | 42                     |
| Mining and Metals   | 27                       | 8                      | 19                     |
| Public Works and Infrastructure   | 5                        | 3                      | 2                      |
| Real Estate and Related   | 361                      | 84                     | 277                    |
| Other Services  | 273                      | 108                    | 165                    |
| Telecommunication and Media   | 6                        | -                      | 6                      |
| Transportation  | 142                      | 26                     | 116                    |
| Utilities   | -                        | -                      | -                      |
| Other   | 48                       | 21                     | 27                     |
| <b>Total Wholesale</b>  | <b>1,862</b>             | <b>582</b>             | <b>1,280</b>           |
| <b>Total impaired loans and acceptances</b>   | <b>2,872</b>             | <b>894</b>             | <b>1,978</b>           |
| Securities  | 152                      | (5)                    | 157                    |
| <b>Total impaired exposures</b>   | <b>3,024</b>             | <b>889</b>             | <b>2,135</b>           |

<sup>1</sup> Allowance reflects only Stage 3 IFRS 9 allowances and includes allowances on acquired credit-impaired loans and securities.



## CRB: Additional disclosure related to the credit quality of assets (continued)

As at October 31, 2020

| Impaired exposures by portfolio and sector<br>(Millions of Canadian dollars) | Gross impaired exposures | Allowance <sup>1</sup> | Net impaired exposures |
|--|--------------------------|------------------------|------------------------|
| <b>Retail</b>  |                          |                        |                        |
| Residential mortgages  | 638                      | 152                    | 486                    |
| Personal   | 212                      | 96                     | 116                    |
| Small business   | 90                       | 33                     | 57                     |
| <b>Total Retail</b>  | <b>940</b>               | <b>281</b>             | <b>659</b>             |
| <b>Wholesale</b>   |                          |                        |                        |
| Agriculture  | 70                       | 10                     | 60                     |
| Automotive   | 79                       | 14                     | 65                     |
| Banking  | 4                        | -                      | 4                      |
| Consumer Discretionary   | 281                      | 88                     | 193                    |
| Consumer Staples   | 112                      | 26                     | 86                     |
| Oil and Gas  | 552                      | 242                    | 310                    |
| Financial Services   | 81                       | 22                     | 59                     |
| Financial Products   | -                        | -                      | -                      |
| Forest Products  | 13                       | 9                      | 4                      |
| Governments  | 7                        | 2                      | 5                      |
| Industrial Products  | 57                       | 18                     | 39                     |
| Information Technology   | 14                       | 1                      | 13                     |
| Investments  | 47                       | 1                      | 46                     |
| Mining and Metals  | 30                       | 9                      | 21                     |
| Public Works and Infrastructure  | 8                        | 2                      | 6                      |
| Real Estate and Related  | 395                      | 88                     | 307                    |
| Other Services   | 251                      | 99                     | 152                    |
| Telecommunication and Media  | 6                        | -                      | 6                      |
| Transportation   | 148                      | 16                     | 132                    |
| Utilities  | 46                       | 2                      | 44                     |
| Other  | 54                       | 19                     | 35                     |
| <b>Total Wholesale</b>   | <b>2,255</b>             | <b>668</b>             | <b>1,587</b>           |
| <b>Total impaired loans and acceptances</b>                                  | <b>3,195</b>             | <b>949</b>             | <b>2,246</b>           |
| Securities   | 157                      | (4)                    | 161                    |
| <b>Total impaired exposures</b>  | <b>3,352</b>             | <b>945</b>             | <b>2,407</b>           |

<sup>1</sup> Allowance reflects only Stage 3 IFRS 9 allowances and includes allowances on acquired credit-impaired loans and securities.

**CRB: Additional disclosure related to the credit quality of assets (continued)**
**(g) Ageing analysis of accounting past-due exposures**

The following table provides the ageing of our retail and wholesale past due exposures. Loans under payment deferral programs resulting from COVID-19 have been re-aged to current and are not aged further during the deferral period. Subsequent to the payment deferral period, loans will commence re-ageing from current. Amounts presented may include loans past due as a result of administrative processes, such as mortgage loans on which payments are restrained pending payout due to sale or refinance, which can fluctuate based on business volumes. Past due loans arising from administrative processes are not representative of the borrowers' ability to meet their payment obligations. The table excludes loans less than 30 days past due as they are not generally representative of the borrowers' ability to meet their payment obligations.

As at January 31, 2021

| (Millions of Canadian dollars) | 30 to 89 days | 90 days and greater | Total        |
|--------------------------------|---------------|---------------------|--------------|
| Retail                         | 1,620         | 165                 | 1,785        |
| Wholesale                      | 693           | 11                  | 704          |
| <b>Total</b>                   | <b>2,313</b>  | <b>176</b>          | <b>2,489</b> |

As at October 31, 2020

| (Millions of Canadian dollars) | 30 to 89 days | 90 days and greater | Total        |
|--------------------------------|---------------|---------------------|--------------|
| Retail                         | 1,013         | 129                 | 1,142        |
| Wholesale                      | 574           | 13                  | 587          |
| <b>Total</b>                   | <b>1,587</b>  | <b>142</b>          | <b>1,729</b> |

**(h) Breakdown of restructured exposures between impaired and not impaired exposures**

The following table provides a breakdown of restructured exposures between impaired and not impaired.

| (Millions of Canadian dollars) | As at January 31, 2021 |          | As at October 31, 2020 |          |
|--------------------------------|------------------------|----------|------------------------|----------|
|                                | Not Impaired           | Impaired | Not Impaired           | Impaired |
| Retail                         | 62,739                 | 106      | 66,335                 | 2        |
| Wholesale                      | 17,130                 | 243      | 19,010                 | 304      |

**CRC: Qualitative disclosure requirements related to credit risk mitigation techniques**

The table below presents an overview of Pillar 3 disclosure requirements that have been met within our 2020 Annual Report and incorporated by reference into this Pillar 3 report. Our 2020 Annual Report is available free of charge on our website at <http://www.rbc.com/investorrelations>

| Pillar 3 disclosures requirement  | RBC 2020 Annual Report section    | Sub-section  |
|---|-----------------------------------|--|
| a) Core features of policies and processes for, and an indication of the extent to which the bank makes use of, on- and off-balance sheet netting | Credit risk                       | Credit risk assessment – <i>Counterparty credit risk</i>   |
|   | Consolidated Financial Statements | Note 8 - Derivative financial instruments and hedging activities – <i>Derivative-related credit risk</i> |
|   |                                   | Note 30 - Offsetting financial assets and financial liabilities  |
| b) Core features of policies and processes for collateral evaluation and management   | Credit risk                       | Credit risk mitigation – <i>Collateral</i>   |
| c) Information about market or credit risk concentrations under the credit risk mitigation instruments used                                       | Credit risk                       | Credit risk mitigation   |
|   |                                   | Credit risk approval – <i>Credit risk limits</i>   |
|   | Consolidated Financial Statements | Note 8 - Derivative financial instruments and hedging activities   |

**CRD: Qualitative disclosures on banks' use of external credit ratings under the standardized approach for credit risk**

As detailed in section CR4, certain of our portfolios RWA amounts are calculated as per OSFI's CAR Guideline Standardized Approach requirements. OSFI's Standardized Approach methodology allows for the reliance on the external credit ratings of counterparties, issued by independent rating agencies, for the determination of RWA. Five external rating agencies ratings, namely, Standard & Poor's (S&P), Moody's Investors Service, Fitch Rating Services, DBRS and Kroll Bond Rating Agency, Inc. have been approved by OSFI. Currently, external ratings are used to determine the RWA amounts associated with our wholesale exposures under the asset classes of corporate, sovereign, public sector entities, multilateral development banks, banks and securities firms. As well, external ratings are used for determining the risk weighting for certain of our securitizations exposures.

External ratings utilized from the above-mentioned rating agencies are either an issuer rating or an issue-specific rating. We rely on an issue-specific rating if it is available for the purposes of determining RWA for the exposure we hold. We utilize the issuer rating only for our exposures which rank pari-passu with senior claims of the issuer.

Our supervisor, OSFI specifies in its CAR guideline the required standard mapping of long term external ratings of the above rating agencies to an equivalent risk weight. We rely on OSFI's mapping to determine the appropriate risk buckets for our Standardized Approach portfolios under the guideline. OSFI's current mapping of external rating agencies rating is reflected in the table below:

| Standardized Risk Weight Category | Long-term rating |              |              |                       |              |
|-----------------------------------|------------------|--------------|--------------|-----------------------|--------------|
|                                   | S&P              | Moody's      | Fitch        | DBRS                  | Kroll        |
| <b>Long Term</b>                  |                  |              |              |                       |              |
| (AAA to AA-)                      | AAA to AA-       | Aaa to Aa3   | AAA to AA-   | AAA to AA (low)       | AAA to AA-   |
| (A+ to A-)                        | A+ to A-         | A1 to A3     | A+ to A-     | A(high) to A(low)     | A+ to A-     |
| (BBB+ to BBB-)                    | BBB+ to BBB-     | Baa1 to Baa3 | BBB+ to BBB- | BBB(high) to BBB(low) | BBB+ to BBB- |
| (BB+ to BB-)                      | BB+ to BB-       | Ba1 to Ba3   | BB+ to BB-   | BB(high) to BB(low)   | BB+ to BB-   |
| (B+ to B-)                        | B+ to B-         | B1 to B3     | B+ to B-     | B(high) to B(low)     | B+ to B-     |
| (Below B-)                        | Below B-         | Below B3     | Below B-     | CCC or lower          | Below B-     |

We understand that OSFI reviews the list of acceptable rating agencies and will reflect any changes in allowed rating agencies in its revisions to the CAR guidelines.

**CR4: Standardized approach – credit risk exposure and credit risk mitigation (CRM) effects**

The following table provides the effect of CRM on the calculation of capital requirements under the standardized approach. It presents on-balance sheet and off-balance sheet exposures before and after credit conversion factors (CCF) and CRM as well as associated RWA and RWA density by asset classes. As noted in CRD, the external ratings of the counterparty is relied on to determine the prescribed regulatory risk weight to be assigned.

As at January 31, 2021

|           | (Millions of Canadian dollars, except as otherwise noted) | a                            | b                        | c                          | d                        | e                   | f            |
|-----------|---|------------------------------|--------------------------|----------------------------|--------------------------|---------------------|--------------|
|           |   | Exposures before CCF and CRM |                          | Exposures post-CCF and CRM |                          | RWA and RWA density |              |
|           |   | On-balance sheet amount      | Off-balance sheet amount | On-balance sheet amount    | Off-balance sheet amount | RWA                 | RWA density  |
| 1         | Sovereigns and their central banks <sup>1</sup>           | 22,792                       | 366                      | 40,465                     | 28                       | 213                 | 0.5%         |
| 2         | Non-central government public sector entities             | 15,045                       | 38                       | 15,047                     | 18                       | 2,537               | 16.8%        |
| 3         | Multilateral development banks                            | 451                          | -                        | 451                        | -                        | -                   | -            |
| 4         | Banks   | 3,316                        | 349                      | 3,316                      | 168                      | 857                 | 24.6%        |
| 5         | Securities firms <sup>1</sup>                             | 4,204                        | 2,083                    | 5,367                      | 831                      | 1,747               | 28.2%        |
| 6         | Corporates <sup>1</sup>                                   | 51,598                       | 33,199                   | 43,843                     | 7,488                    | 50,492              | 98.0%        |
| 7         | Regulatory retail portfolios                              | 8,276                        | 5,427                    | 8,276                      | 349                      | 6,806               | 78.9%        |
| 8         | Secured by residential property <sup>1</sup>              | 41,083                       | -                        | 22,316                     | -                        | 8,599               | 38.5%        |
| 9         | Secured by commercial real estate                         | -                            | -                        | -                          | -                        | -                   | -            |
| 10        | Equity  | -                            | -                        | -                          | -                        | -                   | -            |
| 11        | Past-due loans  | 425                          | -                        | 420                        | -                        | 602                 | 143.3%       |
| 12        | Higher-risk categories                                    | 40                           | 21                       | 40                         | 11                       | 76                  | 149.0%       |
| 13        | Other assets  | 24,025                       | -                        | 24,025                     | -                        | 24,082              | 100.2%       |
| <b>14</b> | <b>Total</b>  | <b>171,255</b>               | <b>41,483</b>            | <b>163,566</b>             | <b>8,893</b>             | <b>96,011</b>       | <b>55.7%</b> |

<sup>1</sup> When CRM is available in the form of an eligible guarantee, the portion that is covered by the guarantee will attract the risk weight of the protection provider and will be reflected in the protection provider's asset class in column c and d. Exposures acquired through the US Government Paycheck Protection Program have been excluded, as required by OSFI.

As at October 31, 2020

|           | (Millions of Canadian dollars, except as otherwise noted) | a                            | b                        | c                          | d                        | e                   | f            |
|-----------|---|------------------------------|--------------------------|----------------------------|--------------------------|---------------------|--------------|
|           |   | Exposures before CCF and CRM |                          | Exposures post-CCF and CRM |                          | RWA and RWA density |              |
|           |   | On-balance sheet amount      | Off-balance sheet amount | On-balance sheet amount    | Off-balance sheet amount | RWA                 | RWA density  |
| 1         | Sovereigns and their central banks <sup>1</sup>           | 26,887                       | 396                      | 44,864                     | 3                        | 221                 | 0.5%         |
| 2         | Non-central government public sector entities             | 13,359                       | 38                       | 13,361                     | 18                       | 2,139               | 16.0%        |
| 3         | Multilateral development banks                            | 233                          | -                        | 233                        | -                        | -                   | -            |
| 4         | Banks   | 3,014                        | 368                      | 3,014                      | 180                      | 755                 | 23.6%        |
| 5         | Securities firms <sup>1</sup>                             | 4,282                        | 2,014                    | 5,441                      | 828                      | 1,797               | 28.7%        |
| 6         | Corporates <sup>1</sup>                                   | 50,383                       | 32,887                   | 42,987                     | 7,776                    | 50,005              | 99.0%        |
| 7         | Regulatory retail portfolios                              | 8,175                        | 5,478                    | 8,175                      | 396                      | 6,775               | 79.0%        |
| 8         | Secured by residential property <sup>1</sup>              | 41,727                       | -                        | 22,661                     | -                        | 8,724               | 38.5%        |
| 9         | Secured by commercial real estate                         | -                            | -                        | -                          | -                        | -                   | -            |
| 10        | Equity  | -                            | -                        | -                          | -                        | -                   | -            |
| 11        | Past-due loans  | 544                          | -                        | 543                        | -                        | 775                 | 142.7%       |
| 12        | Higher-risk categories                                    | 143                          | 22                       | 143                        | 11                       | 231                 | 150.0%       |
| 13        | Other assets  | 22,538                       | -                        | 22,538                     | -                        | 21,867              | 97.0%        |
| <b>14</b> | <b>Total</b>  | <b>171,285</b>               | <b>41,203</b>            | <b>163,960</b>             | <b>9,212</b>             | <b>93,289</b>       | <b>53.9%</b> |

<sup>1</sup> When CRM is available in the form of an eligible guarantee, the portion that is covered by the guarantee will attract the risk weight of the protection provider and will be reflected in the protection provider's asset class in column c and d. Exposures acquired through the US Government Paycheck Protection Program have been excluded, as required by OSFI.

**CR5: Standardized approach – exposures by asset classes and risk weights**

The following table presents the breakdown of credit risk exposures under the standardized approach by asset classes and risk weight.

As at January 31, 2021

|   | Risk weight                                   | a             | b        | c             | d             | e          | f            | g             | h          | i          | j   |
|---|---|---------------|----------|---------------|---------------|------------|--------------|---------------|------------|------------|---|
|   |   | 0%            | 10%      | 20%           | 35%           | 50%        | 75%          | 100%          | 150%       | Others     | Total credit exposures amount (post CCF and post-CRM) |
| Asset Classes<br>(Millions of Canadian dollars) |   |               |          |               |               |            |              |               |            |            |   |
| 1   | Sovereigns and their central banks            | 40,280        | -        | -             | -             | -          | -            | 213           | -          | -          | 40,493  |
| 2   | Non-central government public sector entities | 2,828         | -        | 12,124        | -             | 2          | -            | 111           | -          | -          | 15,065  |
| 3   | Multilateral development banks                | 451           | -        | -             | -             | -          | -            | -             | -          | -          | 451   |
| 4   | Banks   | -             | -        | 3,241         | -             | 70         | -            | 173           | -          | -          | 3,484   |
| 5   | Securities firms                              | -             | -        | 5,049         | -             | 823        | -            | 326           | -          | -          | 6,198   |
| 6   | Corporates                                    | -             | -        | 7             | 1,272         | 14         | -            | 50,038        | -          | -          | 51,331  |
| 7   | Regulatory retail portfolios                  | -             | -        | -             | -             | -          | 7,275        | 1,350         | -          | -          | 8,625   |
| 8   | Secured by residential property               | -             | -        | -             | 20,344        | -          | 1,972        | -             | -          | -          | 22,316  |
| 9   | Secured by commercial real estate             | -             | -        | -             | -             | -          | -            | -             | -          | -          | -   |
| 10  | Equity  | -             | -        | -             | -             | -          | -            | -             | -          | -          | -   |
| 11  | Past-due loans                                | 1             | -        | 3             | -             | -          | -            | 59            | 357        | -          | 420   |
| 12  | Higher-risk categories                        | -             | -        | -             | -             | -          | -            | -             | 51         | -          | 51  |
| 13  | Other assets                                  | 3,244         | -        | -             | -             | -          | -            | 20,494        | -          | 287        | 24,025  |
| 14  | <b>Total</b>                                  | <b>46,804</b> | <b>-</b> | <b>20,424</b> | <b>21,616</b> | <b>909</b> | <b>9,247</b> | <b>72,764</b> | <b>408</b> | <b>287</b> | <b>172,459</b>  |



As at October 31, 2020

|           | Risk weight<br>Asset Classes<br>(Millions of Canadian dollars) | a             | b        | c             | d             | e          | f            | g             | h          | i          | j   |
|-----------|--|---------------|----------|---------------|---------------|------------|--------------|---------------|------------|------------|---|
|           |  | 0%            | 10%      | 20%           | 35%           | 50%        | 75%          | 100%          | 150%       | Others     | Total credit exposures amount (post CCF and post-CRM) |
| 1         | Sovereigns and their central banks                             | 44,646        | -        | -             | -             | -          | -            | 221           | -          | -          | 44,867  |
| 2         | Non-central government public sector entities                  | 2,823         | -        | 10,521        | -             | 1          | -            | 34            | -          | -          | 13,379  |
| 3         | Multilateral development banks                                 | 233           | -        | -             | -             | -          | -            | -             | -          | -          | 233   |
| 4         | Banks  | -             | -        | 3,020         | -             | 46         | -            | 127           | -          | -          | 3,194   |
| 5         | Securities firms   | -             | -        | 5,066         | -             | 838        | -            | 365           | -          | -          | 6,269   |
| 6         | Corporates   | -             | -        | 7             | 1,146         | 14         | -            | 49,596        | -          | -          | 50,762  |
| 7         | Regulatory retail portfolios                                   | -             | -        | -             | -             | -          | 7,181        | 1,390         | -          | -          | 8,571   |
| 8         | Secured by residential property                                | -             | -        | -             | 20,679        | -          | 1,982        | -             | -          | -          | 22,661  |
| 9         | Secured by commercial real estate                              | -             | -        | -             | -             | -          | -            | -             | -          | -          | -   |
| 10        | Equity   | -             | -        | -             | -             | -          | -            | -             | -          | -          | -   |
| 11        | Past-due loans   | 1             | -        | -             | -             | -          | -            | 82            | 462        | -          | 544   |
| 12        | Higher-risk categories   | -             | -        | -             | -             | -          | -            | -             | 154        | -          | 154   |
| 13        | Other assets   | 3,956         | -        | -             | -             | -          | -            | 18,297        | -          | 286        | 22,538  |
| <b>14</b> | <b>Total</b>   | <b>51,659</b> | <b>-</b> | <b>18,614</b> | <b>21,825</b> | <b>899</b> | <b>9,163</b> | <b>70,112</b> | <b>616</b> | <b>286</b> | <b>173,172</b>  |

**CRE: Qualitative disclosures related to internal risk-based (IRB) models**

In measuring credit risk to determine regulatory capital, two principal approaches applied are: the Internal Ratings Based (IRB) approach and the Standardized approach. The majority of our credit risk exposures are reported under the IRB approach, as approved by OSFI. The remainder of our portfolios are reported under the Standardized approach. The Standardized approach uses risk weights prescribed by OSFI to calculate RWA for credit risk exposures.

Under the IRB approach, we determine our own estimates for Probability of Default (PD), Loss Given Default (LGD) and Exposure at Default (EAD). They are the key credit parameters that form the basis of our credit risk measures. Internal ratings for borrower facilities and their corresponding estimates are used for credit approval, risk management, internal capital allocations, and corporate governance functions. In addition, the IRB parameter estimates are critical inputs for enterprise and regulatory stress-testing.

In accordance with the IRB approach for credit risk, models are designed for wholesale and retail portfolios. For Wholesale portfolios, a PD is estimated for each internal borrower grade and LGD and EAD parameters are estimated for each credit facility. For Retail portfolios, borrowers are risk rated using internal credit scoring models. Credit scores are one of the key drivers for segmentation of the portfolios into pools. Retail PD, EAD and LGD parameters are estimated at the pool level. All IRB approach regulatory capital models for wholesale and retail credit risk are subject to approval by the Office of the Superintendent of Financial Institutions (OSFI).

Credit parameter estimates are based on our internal historical default and loan loss experience and are augmented by external data where appropriate. We employ a two-dimensional risk rating system for the majority of our credit portfolios. The first dimension is oriented to the risk of borrower default and quantified through the PD assigned to the borrower. The second dimension captures transaction-specific factors such as collateral, product type, and seniority, and is quantified by LGD and EAD estimates that apply at the credit facility level.

PD is an estimated percentage that represents the likelihood of default of an obligor within a given time period for a specific rating grade or for a particular pool of exposure. Each wholesale obligor is assigned a Borrower Risk Rating (BRR), reflecting an assessment of the credit quality of the obligor and each BRR has a PD calibrated against it. The assignment of BRRs is based on the evaluation of the obligor's business risk and financial risk and is based on fundamental credit analysis, as well as data-driven modelling. PD estimates are designed to be a long-run average of our experience across the economic cycle with margins of conservatism related to the likely range of errors. The BRR differentiates the riskiness of obligors and represents our evaluation of the obligors' ability and willingness to meet their contractual obligations on time over a three-year time horizon.

EAD is an amount expected to be owed by an obligor at the time of default. EAD is estimated based on the current exposure to the obligor and the possible future changes in that exposure driven by factors such as the nature of the credit commitment. Rates are estimated to reflect an economic downturn, with added conservatism to reflect data and statistical uncertainties identified in the modelling process.

LGD is an estimated percentage of EAD that is not expected to be recovered during the collection and recovery process. Each credit facility is assigned an LGD rate reflective of the extent of losses anticipated in the event the obligor defaults. Factors used in estimating LGD include seniority of debt, collateral security, and the industry sector in which the obligor operates. Estimated LGD rates draw primarily on internal loss experience and appropriate external data is used to supplement the estimation process when necessary. LGD rates are estimated to reflect conditions that might be expected to prevail in an economic downturn, with additional conservatism added to reflect data limitations and statistical uncertainties identified in the estimation process.

Estimates of PD, LGD and EAD are updated and then validated and back-tested by an independent validation team within the bank on an annual basis. In addition, quarterly monitoring and back-testing procedures are performed.

**CRE: Qualitative disclosures related to internal risk-based (IRB) models (continued)**
**EAD Covered by the Various Approaches**

The following table outlines the percentage of our EAD covered by the IRB and Standardized approaches for each of our portfolios. The Foundation Internal Ratings Based (FIRB) approach is currently not applied.

As at January 31, 2021

| EAD (in %)  | EAD covered by the various approaches |                           |       |
|---|---------------------------------------|---------------------------|-------|
|   | Standardized Approach <sup>1,2</sup>  | IRB Approach <sup>2</sup> | Other |
| <b>Retail</b>   |                                       |                           |       |
| Residential secured   | 13%                                   | 87%                       | -     |
| Qualifying revolving  | -                                     | 100%                      | -     |
| Other retail  | 4%                                    | 96%                       | -     |
| <b>Wholesale</b>  | -                                     | -                         | -     |
| Corporate   | 16%                                   | 84%                       | -     |
| Sovereign   | 12%                                   | 88%                       | -     |
| Bank  | 7%                                    | 93%                       | -     |
| <b>Securitization</b>   | 36%                                   | 64%                       | -     |
| <b>Trading</b>  | 1%                                    | 99%                       | -     |
| <b>Equity</b>   | -                                     | 100%                      | -     |
| <b>Other assets not subject to Standardized or IRB Approaches</b> | -                                     | -                         | 100%  |
| <b>Total</b>  | 8%                                    | 91%                       | 1%    |

<sup>1</sup> Standardized Approach includes assumptions and waivers granted by OSFI based on an OSFI approved rollout plan.

<sup>2</sup> Effective Q2 2020, we have updated the table to include counterparty credit risk and securitization exposures in order to better align with OSFI's 80% IRB threshold requirement.

As at October 31, 2020

| EAD (in %)  | EAD covered by the various approaches |                           |       |
|---|---------------------------------------|---------------------------|-------|
|   | Standardized Approach <sup>1,2</sup>  | IRB Approach <sup>2</sup> | Other |
| <b>Retail</b>   |                                       |                           |       |
| Residential secured   | 14%                                   | 86%                       | -     |
| Qualifying revolving  | -                                     | 100%                      | -     |
| Other retail  | 4%                                    | 96%                       | -     |
| <b>Wholesale</b>  | -                                     | -                         | -     |
| Corporate   | 15%                                   | 85%                       | -     |
| Sovereign   | 14%                                   | 86%                       | -     |
| Bank  | 8%                                    | 92%                       | -     |
| <b>Securitization</b>   | 34%                                   | 66%                       | -     |
| <b>Trading</b>  | 2%                                    | 98%                       | -     |
| <b>Equity</b>   | -                                     | 100%                      | -     |
| <b>Other assets not subject to Standardized or IRB Approaches</b> | -                                     | -                         | 100%  |
| <b>Total</b>  | 9%                                    | 90%                       | 1%    |

<sup>1</sup> Standardized Approach includes assumptions and waivers granted by OSFI based on an OSFI approved rollout plan.

<sup>2</sup> Effective Q2 2020, we have updated the table to include counterparty credit risk and securitization exposures in order to better align with OSFI's 80% IRB threshold requirement.



**CRE: Qualitative disclosures related to internal risk-based (IRB) models (continued)**

**Parameters Governance**

The techniques used to develop models are in accordance with banking industry standards and regulatory requirements. We calibrate our models to ensure that variations of default rates through an economic cycle are included in the underlying data. We also build conservatism into our model development process to reflect statistical uncertainties.

Our models have Model Development Owners (MDO) who are accountable for the development and performance of models within the framework set by our policies, standards and procedures. MDOs are responsible for collecting, defining and documenting model requirements, collecting and reviewing data, testing and evaluating, designing model performance monitoring, and documenting.

Our models are required to be independently reviewed and comprehensively evaluated by the Enterprise Model Risk Management (EMRM) team. EMRM is responsible for the review and challenge of the methodology underpinning the estimation of the parameters. EMRM issues a report at the end of each validation exercise that documents the scope, approach and findings of the review. The parameters reviewed by EMRM are presented to the Credit Models Governance Committee and approved by RBC's senior risk management committee.

**Back-testing of Parameters and Model Performance**

The IRB credit risk parameters are estimated, at a minimum, annually and more frequently if deemed necessary. In order to ensure that any material events are identified in a timely fashion, we engage in regular monitoring of realized results against established estimates. In cases where the actual results exceed predefined thresholds, a review of the results will be conducted and documented which may lead to a re-calibration of the parameters. Any recommended changes to the parameters would be approved by the Credit Models Governance Committee, and OSFI as applicable.

**CR6: IRB – Credit risk exposures by portfolio and PD range**

The following table provides the key parameters used for the calculation of capital requirements for credit risk exposures under the IRB approach, broken down by asset class and PD range.

As at January 31, 2021

|   |   | a  | b                                   | c               | d                         | e              | f                               | g               | h                           | i              | j               | k            | l                       |
|---|---|--|-------------------------------------|-----------------|---------------------------|----------------|---------------------------------|-----------------|-----------------------------|----------------|-----------------|--------------|-------------------------|
|   | (Millions of Canadian dollars, except as otherwise noted) | Original on-balance sheet gross exposure | Off-balance sheet exposures pre CCF | Average CCF (%) | EAD post CRM and post-CCF | Average PD (%) | Number of obligors <sup>2</sup> | Average LGD (%) | Average maturity (in years) | RWA            | RWA density (%) | EL           | Provisions <sup>3</sup> |
|   | PD scale <sup>1</sup>                                     |  |                                     |                 |                           |                |                                 |                 |                             |                |                 |              |                         |
|   | Asset Classes   |  |                                     |                 |                           |                |                                 |                 |                             |                |                 |              |                         |
| 1 | <b>Sovereigns</b>   |  |                                     |                 |                           |                |                                 |                 |                             |                |                 |              |                         |
|   | 0.00 to < 0.15  | 254,687                                  | 22,609                              | 54.37           | 351,527                   | 0.01           | 1,327                           | 27.91           | 1.22                        | 13,590         | 4.0             | 14           |                         |
|   | 0.15 to < 0.25  | 402                                      | 590                                 | 62.68           | 717                       | 0.19           | 198                             | 36.75           | 2.07                        | 237            | 33.0            | 1            |                         |
|   | 0.25 to < 0.50  | 154                                      | 96                                  | 54.93           | 206                       | 0.41           | 65                              | 25.29           | 1.49                        | 69             | 33.0            | -            |                         |
|   | 0.50 to < 0.75  | 388                                      | 15                                  | 55.29           | 397                       | 0.72           | 439                             | 26.30           | 2.82                        | 209            | 53.0            | 1            |                         |
|   | 0.75 to < 2.50  | 25                                       | 9                                   | 59.42           | 26                        | 1.44           | 47                              | 31.96           | 2.18                        | 20             | 75.0            | -            |                         |
|   | 2.50 to < 10.00   | 12                                       | 12                                  | 53.50           | 18                        | 4.60           | 20                              | 39.98           | 2.30                        | 24             | 129.0           | -            |                         |
|   | 10.00 to < 100.00   | -  | -                                   | 65.00           | -                         | 29.24          | 3                               | 45.00           | 1.20                        | -              | 252.0           | -            |                         |
|   | 100.00 (default)  | 76                                       | 7                                   | 0.99            | 76                        | 100.00         | 6                               | 25.00           | 2.49                        | 9              | 11.0            | 19           |                         |
|   | <b>Total Sovereigns</b>                                   | <b>255,744</b>                           | <b>23,338</b>                       | <b>54.56</b>    | <b>352,967</b>            | <b>0.04</b>    | <b>2,105</b>                    | <b>27.93</b>    | <b>1.22</b>                 | <b>14,158</b>  | <b>4.0</b>      | <b>35</b>    | <b>19</b>               |
| 2 | <b>Banks</b>  |  |                                     |                 |                           |                |                                 |                 |                             |                |                 |              |                         |
|   | 0.00 to < 0.15  | 20,786                                   | 2,256                               | 46.22           | 29,956                    | 0.06           | 167                             | 31.99           | 1.74                        | 5,222          | 17.0            | 5            |                         |
|   | 0.15 to < 0.25  | 551                                      | 351                                 | 43.52           | 1,067                     | 0.17           | 61                              | 42.97           | 1.76                        | 504            | 47.0            | 1            |                         |
|   | 0.25 to < 0.50  | 187                                      | 99                                  | 49.58           | 248                       | 0.41           | 19                              | 44.35           | 2.04                        | 173            | 70.0            | -            |                         |
|   | 0.50 to < 0.75  | 189                                      | 124                                 | 39.11           | 241                       | 0.72           | 18                              | 39.59           | 1.04                        | 156            | 65.0            | 1            |                         |
|   | 0.75 to < 2.50  | 97                                       | 321                                 | 51.50           | 265                       | 1.61           | 37                              | 41.07           | 1.66                        | 258            | 98.0            | 2            |                         |
|   | 2.50 to < 10.00   | 58                                       | 13                                  | 48.28           | 64                        | 6.10           | 16                              | 43.35           | 1.01                        | 101            | 157.0           | 2            |                         |
|   | 10.00 to < 100.00   | 1  | -                                   | -               | 1                         | 25.04          | 8                               | 44.04           | 1.02                        | 3              | 264.0           | -            |                         |
|   | 100.00 (default)  | -  | -                                   | -               | -                         | 100.00         | 2                               | 60.00           | 2.50                        | -              | 795.0           | -            |                         |
|   | <b>Total Banks</b>  | <b>21,869</b>                            | <b>3,164</b>                        | <b>46.30</b>    | <b>31,842</b>             | <b>0.09</b>    | <b>328</b>                      | <b>32.61</b>    | <b>1.73</b>                 | <b>6,417</b>   | <b>20.0</b>     | <b>11</b>    | <b>-</b>                |
| 3 | <b>Corporates</b>   |  |                                     |                 |                           |                |                                 |                 |                             |                |                 |              |                         |
|   | 0.00 to < 0.15  | 27,312                                   | 101,923                             | 52.07           | 80,391                    | 0.09           | 10,070                          | 39.54           | 2.09                        | 20,287         | 25.2            | 29           |                         |
|   | 0.15 to < 0.25  | 24,764                                   | 60,483                              | 51.13           | 54,602                    | 0.19           | 10,129                          | 41.01           | 2.26                        | 21,898         | 40.1            | 43           |                         |
|   | 0.25 to < 0.50  | 20,923                                   | 25,764                              | 50.48           | 32,085                    | 0.41           | 6,741                           | 36.71           | 2.29                        | 16,550         | 51.6            | 49           |                         |
|   | 0.50 to < 0.75  | 23,047                                   | 24,033                              | 51.50           | 33,381                    | 0.71           | 6,732                           | 34.58           | 2.55                        | 21,063         | 63.1            | 83           |                         |
|   | 0.75 to < 2.50  | 42,328                                   | 34,446                              | 48.93           | 53,611                    | 1.57           | 14,135                          | 33.81           | 2.20                        | 40,880         | 76.3            | 284          |                         |
|   | 2.50 to < 10.00   | 25,796                                   | 31,020                              | 50.10           | 35,445                    | 4.02           | 12,067                          | 34.12           | 2.39                        | 36,568         | 103.2           | 488          |                         |
|   | 10.00 to < 100.00   | 2,950                                    | 2,719                               | 51.05           | 3,573                     | 17.49          | 2,806                           | 34.17           | 2.19                        | 5,667          | 158.6           | 216          |                         |
|   | 100.00 (default)  | 1,431                                    | 504                                 | 31.63           | 1,497                     | 100.00         | 1,155                           | 38.18           | 2.13                        | 3,512          | 234.6           | 470          |                         |
|   | <b>Total Corporates</b>                                   | <b>168,551</b>                           | <b>280,892</b>                      | <b>51.04</b>    | <b>294,585</b>            | <b>1.67</b>    | <b>63,835</b>                   | <b>37.17</b>    | <b>2.25</b>                 | <b>166,425</b> | <b>56.5</b>     | <b>1,662</b> | <b>643</b>              |
| 4 | <b>Total Wholesale</b>                                    | <b>446,164</b>                           | <b>307,394</b>                      | <b>51.26</b>    | <b>679,394</b>            | <b>0.75</b>    | <b>66,268</b>                   | <b>32.16</b>    | <b>1.69</b>                 | <b>187,000</b> | <b>28.0</b>     | <b>1,708</b> | <b>662</b>              |

<sup>1</sup> Refer to "Internal ratings map" under the Credit Risk Assessment section in our 2020 Annual Report MD&A.

<sup>2</sup> Number of obligors is defined as the number of borrowers in each PD band. For Retail exposures, a borrower can appear in multiple PD bands if the borrower has more than one type of product with the bank. In addition, Retail obligors include borrowers where the portion of the exposure has been securitized given CAR guideline requirements related to retained interests. Wholesale obligors are reflected as unique borrowers. For example, sovereign obligors include central banks or agencies, public sector entities and multilateral development banks which are each reflected as unique borrowers in the sovereign asset class. Effective Q3 2020, retail borrowers with both Visa and Mastercard are counted as one borrower in the asset class qualifying revolving retail.

<sup>3</sup> Provisions reflect only IFRS 9 Stage 3 allowances under the IRB portfolio.



## CR6: IRB – Credit risk exposures by portfolio and PD range (continued)

As at January 31, 2021

|   |   | a  | b                                   | c               | d                         | e              | f                               | g               | h                           | i             | j               | k          | l                       |
|---|---|--|-------------------------------------|-----------------|---------------------------|----------------|---------------------------------|-----------------|-----------------------------|---------------|-----------------|------------|-------------------------|
| (Millions of Canadian dollars, except as otherwise noted) | PD scale <sup>1</sup>   | Original on-balance sheet gross exposure | Off-balance sheet exposures pre CCF | Average CCF (%) | EAD post CRM and post-CCF | Average PD (%) | Number of obligors <sup>2</sup> | Average LGD (%) | Average maturity (in years) | RWA           | RWA density (%) | EL         | Provisions <sup>3</sup> |
| <b>Asset Classes</b>                                      |   |  |                                     |                 |                           |                |                                 |                 |                             |               |                 |            |                         |
| 5   | <b>Retail insured exposure secured by real estate<sup>4</sup></b> |  |                                     |                 |                           |                |                                 |                 |                             |               |                 |            |                         |
|   | 0.00 to < 0.15  | 21,177                                   |                                     |                 | 1,639                     | 0.14           | 134,191                         | 16.47           |                             | 88            | 5.0             | -          |                         |
|   | 0.15 to < 0.25  | -  |                                     |                 | -                         | -              | -                               | -               |                             | -             | -               | -          |                         |
|   | 0.25 to < 0.50  | 43,719                                   |                                     |                 | 1,505                     | 0.32           | 190,519                         | 15.57           |                             | 141           | 9.0             | 1          |                         |
|   | 0.50 to < 0.75  | 374                                      |                                     |                 | -                         | -              | -                               | -               |                             | -             | -               | -          |                         |
|   | 0.75 to < 2.50  | 8,385                                    |                                     |                 | 273                       | 1.27           | 38,652                          | 14.17           |                             | 59            | 22.0            | -          |                         |
|   | 2.50 to < 10.00   | 4,296                                    |                                     |                 | 38                        | 4.25           | 21,583                          | 10.50           |                             | 13            | 33.0            | -          |                         |
|   | 10.00 to < 100.00   | 978                                      |                                     |                 | -                         | 27.25          | 3,721                           | 10.48           |                             | -             | 28.0            | -          |                         |
|   | 100.00 (default)  | 298                                      |                                     |                 | -                         | -              | 1,468                           | -               |                             | -             | -               | -          |                         |
|   | <b>Total Retail insured exposure secured by real estate</b>       | <b>79,227</b>                            |                                     |                 | <b>3,455</b>              | <b>0.35</b>    | <b>390,134</b>                  | <b>15.83</b>    |                             | <b>301</b>    | <b>9.0</b>      | <b>1</b>   | <b>2</b>                |
| 6   | <b>Uninsured residential mortgages</b>                            |  |                                     |                 |                           |                |                                 |                 |                             |               |                 |            |                         |
|   | 0.00 to < 0.15  | 166,566                                  | 333                                 | 100.00          | 166,898                   | 0.13           | 640,691                         | 17.21           |                             | 8,682         | 5.0             | 36         |                         |
|   | 0.15 to < 0.25  | 51                                       | 24                                  | 100.00          | 75                        | 0.22           | 61                              | 72.24           |                             | 25            | 33.0            | -          |                         |
|   | 0.25 to < 0.50  | 63                                       | 246                                 | 100.00          | 310                       | 0.33           | 232                             | 15.60           |                             | 32            | 10.0            | -          |                         |
|   | 0.50 to < 0.75  | -  | -                                   | -               | -                         | -              | -                               | -               |                             | -             | -               | -          |                         |
|   | 0.75 to < 2.50  | 16,724                                   | 277                                 | 100.00          | 17,002                    | 0.91           | 58,119                          | 18.18           |                             | 3,851         | 23.0            | 28         |                         |
|   | 2.50 to < 10.00   | 5,001                                    | 16                                  | 100.00          | 5,017                     | 4.38           | 22,175                          | 17.54           |                             | 2,825         | 56.0            | 39         |                         |
|   | 10.00 to < 100.00   | 947                                      | 1                                   | 100.00          | 948                       | 22.77          | 4,241                           | 17.48           |                             | 928           | 98.0            | 38         |                         |
|   | 100.00 (default)  | 240                                      | -                                   | -               | 240                       | 100.00         | 1,165                           | 16.92           |                             | 32            | 13.0            | 43         |                         |
|   | <b>Total Uninsured residential mortgages</b>                      | <b>189,592</b>                           | <b>897</b>                          | <b>100.00</b>   | <b>190,490</b>            | <b>0.55</b>    | <b>726,684</b>                  | <b>17.33</b>    |                             | <b>16,375</b> | <b>9.0</b>      | <b>184</b> | <b>46</b>               |

<sup>1</sup> Refer to "Internal ratings map" under the Credit Risk Assessment section in our 2020 Annual Report MD&A.

<sup>2</sup> Number of obligors is defined as the number of borrowers in each PD band. For Retail exposures, a borrower can appear in multiple PD bands if the borrower has more than one type of product with the bank. In addition, Retail obligors include borrowers where the portion of the exposure has been securitized given CAR guideline requirements related to retained interests. Wholesale obligors are reflected as unique borrowers. For example, sovereign obligors include central banks or agencies, public sector entities and multilateral development banks which are each reflected as unique borrowers in the sovereign asset class. Effective Q3 2020, retail borrowers with both Visa and Mastercard are counted as one borrower in the asset class qualifying revolving retail.

<sup>3</sup> Provisions reflect only IFRS 9 Stage 3 allowances under the IRB portfolio.

<sup>4</sup> Retail insured exposures secured by real estate includes residential mortgages and other retail. Residential mortgages reflect 98% of this category. Exposures are insured with government and/or private insurance providers.



## CR6: IRB – Credit risk exposures by portfolio and PD range (continued)

As at January 31, 2021

|    |   | a  | b                                   | c               | d                         | e              | f                               | g               | h                           | i              | j               | k            | l                       |
|----|---|--|-------------------------------------|-----------------|---------------------------|----------------|---------------------------------|-----------------|-----------------------------|----------------|-----------------|--------------|-------------------------|
|    | (Millions of Canadian dollars, except as otherwise noted) | Original on-balance sheet gross exposure | Off-balance sheet exposures pre CCF | Average CCF (%) | EAD post CRM and post-CCF | Average PD (%) | Number of obligors <sup>2</sup> | Average LGD (%) | Average maturity (in years) | RWA            | RWA density (%) | EL           | Provisions <sup>3</sup> |
|    | PD scale <sup>1</sup>                                     |  |                                     |                 |                           |                |                                 |                 |                             |                |                 |              |                         |
|    | <b>Asset Classes</b>                                      |  |                                     |                 |                           |                |                                 |                 |                             |                |                 |              |                         |
| 7  | <b>HELOCs</b>   |  |                                     |                 |                           |                |                                 |                 |                             |                |                 |              |                         |
|    | 0.00 to < 0.15  | 31,646                                   | 97,002                              | 91.52           | 120,426                   | 0.08           | 767,714                         | 24.50           |                             | 6,376          | 5.0             | 24           |                         |
|    | 0.15 to < 0.25  | -  | -                                   | -               | -                         | -              | -                               | -               |                             | -              | -               | -            |                         |
|    | 0.25 to < 0.50  | -  | -                                   | -               | -                         | -              | -                               | -               |                             | -              | -               | -            |                         |
|    | 0.50 to < 0.75  | 2,425                                    | 1,349                               | 93.11           | 3,681                     | 0.71           | 42,853                          | 24.97           |                             | 970            | 26.0            | 7            |                         |
|    | 0.75 to < 2.50  | -  | -                                   | -               | -                         | -              | -                               | -               |                             | -              | -               | -            |                         |
|    | 2.50 to < 10.00   | 1,190                                    | 314                                 | 96.24           | 1,492                     | 4.85           | 16,504                          | 25.00           |                             | 1,223          | 82.0            | 18           |                         |
|    | 10.00 to < 100.00   | 104                                      | 8                                   | 111.10          | 113                       | 34.72          | 953                             | 25.62           |                             | 171            | 152.0           | 10           |                         |
|    | 100.00 (default)  | 102                                      | 1                                   | -               | 102                       | 100.00         | 802                             | 25.06           |                             | 53             | 53.0            | 26           |                         |
|    | <b>Total HELOCs</b>                                       | <b>35,467</b>                            | <b>98,674</b>                       | <b>91.56</b>    | <b>125,814</b>            | <b>0.27</b>    | <b>828,826</b>                  | <b>24.52</b>    |                             | <b>8,793</b>   | <b>7.0</b>      | <b>85</b>    | <b>26</b>               |
| 8  | <b>Qualifying revolving retail</b>                        |  |                                     |                 |                           |                |                                 |                 |                             |                |                 |              |                         |
|    | 0.00 to < 0.15  | 5,666                                    | 52,519                              | 77.44           | 46,335                    | 0.12           | 4,595,100                       | 93.95           |                             | 3,126          | 7.0             | 50           |                         |
|    | 0.15 to < 0.25  | 8,710                                    | 39,605                              | 84.14           | 42,035                    | 0.18           | 3,212,363                       | 88.08           |                             | 3,887          | 9.0             | 68           |                         |
|    | 0.25 to < 0.50  | 944                                      | 5,620                               | 96.50           | 6,368                     | 0.39           | 3,526,176                       | 88.31           |                             | 1,088          | 17.0            | 22           |                         |
|    | 0.50 to < 0.75  | 23                                       | 116                                 | 94.15           | 132                       | 0.59           | 7,854                           | 100.54          |                             | 36             | 27.0            | 1            |                         |
|    | 0.75 to < 2.50  | 8,306                                    | 9,919                               | 83.17           | 16,556                    | 1.30           | 2,459,595                       | 91.16           |                             | 7,338          | 44.0            | 195          |                         |
|    | 2.50 to < 10.00   | 4,728                                    | 2,850                               | 81.32           | 7,045                     | 3.75           | 1,526,452                       | 90.59           |                             | 6,635          | 94.0            | 237          |                         |
|    | 10.00 to < 100.00   | 779                                      | 279                                 | 56.74           | 937                       | 29.47          | 416,609                         | 91.94           |                             | 2,536          | 271.0           | 254          |                         |
|    | 100.00 (default)  | 43                                       | 4                                   | -               | 43                        | 100.00         | 27,562                          | 87.13           |                             | 106            | 245.0           | 30           |                         |
|    | <b>Total Qualifying revolving retail</b>                  | <b>29,199</b>                            | <b>110,912</b>                      | <b>81.37</b>    | <b>119,451</b>            | <b>0.80</b>    | <b>15,771,711</b>               | <b>90.99</b>    |                             | <b>24,752</b>  | <b>21.0</b>     | <b>857</b>   | <b>30</b>               |
| 9  | <b>Other retail</b>                                       |  |                                     |                 |                           |                |                                 |                 |                             |                |                 |              |                         |
|    | 0.00 to < 0.15  | 32,843                                   | 3,231                               | 86.00           | 35,610                    | 0.12           | 132,404                         | 33.00           |                             | 3,534          | 9.9             | 14           |                         |
|    | 0.15 to < 0.25  | 2,596                                    | 7,277                               | 86.00           | 8,875                     | 0.21           | 120,405                         | 81.00           |                             | 3,086          | 34.8            | 14           |                         |
|    | 0.25 to < 0.50  | 8,488                                    | 2,046                               | 108.00          | 10,695                    | 0.33           | 500,455                         | 70.00           |                             | 4,421          | 41.3            | 25           |                         |
|    | 0.50 to < 0.75  | 787                                      | 729                                 | 95.00           | 1,477                     | 0.58           | 100,070                         | 89.00           |                             | 1,085          | 73.5            | 8            |                         |
|    | 0.75 to < 2.50  | 14,387                                   | 4,345                               | 95.00           | 18,532                    | 1.28           | 591,625                         | 62.00           |                             | 13,246         | 71.5            | 148          |                         |
|    | 2.50 to < 10.00   | 5,933                                    | 2,025                               | 89.00           | 7,733                     | 3.88           | 270,984                         | 66.00           |                             | 7,761          | 100.4           | 200          |                         |
|    | 10.00 to < 100.00   | 1,513                                    | 268                                 | 100.00          | 1,780                     | 22.71          | 41,251                          | 62.00           |                             | 2,298          | 129.1           | 298          |                         |
|    | 100.00 (default)  | 117                                      | 2                                   | -               | 117                       | 100.00         | 4,627                           | 66.00           |                             | 161            | 137.6           | 68           |                         |
|    | <b>Total Other retail</b>                                 | <b>66,664</b>                            | <b>19,923</b>                       | <b>91.00</b>    | <b>84,819</b>             | <b>1.37</b>    | <b>1,761,821</b>                | <b>54.00</b>    |                             | <b>35,592</b>  | <b>42.0</b>     | <b>775</b>   | <b>66</b>               |
| 10 | <b>Total retail</b>                                       | <b>400,149</b>                           | <b>230,406</b>                      | <b>91.61</b>    | <b>524,029</b>            | <b>0.67</b>    | <b>19,479,176</b>               | <b>41.77</b>    | -                           | <b>85,813</b>  | <b>16.4</b>     | <b>1,902</b> | <b>170</b>              |
|    | <b>Total</b>  | <b>846,313</b>                           | <b>537,800</b>                      | <b>68.55</b>    | <b>1,203,423</b>          | <b>0.72</b>    | <b>19,545,444</b>               | <b>36.34</b>    | <b>1.69</b>                 | <b>272,813</b> | <b>23.0</b>     | <b>3,610</b> | <b>832</b>              |

<sup>1</sup> Refer to "Internal ratings map" under the Credit Risk Assessment section in our 2020 Annual Report MD&A.

<sup>2</sup> Number of obligors is defined as the number of borrowers in each PD band. For Retail exposures, a borrower can appear in multiple PD bands if the borrower has more than one type of product with the bank. In addition, Retail obligors include borrowers where the portion of the exposure has been securitized given CAR guideline requirements related to retained interests. Wholesale obligors are reflected as unique borrowers. For example, sovereign obligors include central banks or agencies, public sector entities and multilateral development banks which are each reflected as unique borrowers in the sovereign asset class. Effective Q3 2020, retail borrowers with both Visa and Mastercard are counted as one borrower in the asset class qualifying revolving retail.

<sup>3</sup> Provisions reflect only IFRS 9 Stage 3 allowances under the IRB portfolio.

Effective Q1 2021, in addition to retail business growth, approximately 31,000 small business commercial clients, reflecting EAD \$10 bn and RWA of \$5 bn were reclassified from Corporate exposures to Other Retail exposures to align categorization of small business, as defined by the CAR guidelines, as under \$1.25 million. The net impact of this reclass was an increase of EAD \$1.0 bn and RWA of \$1.7 bn at the consolidated level, as the risk-weighting of these previously Corporate exposures are now reflected using retail risk parameters. Also this quarter, the Qualifying revolving retail exposures include a total increase of EAD \$29 bn and RWA \$5 bn for credit card exposures due to exposures no longer risk-weighted using the Securitization Framework (refer to SEC 1 and SEC 3) and maturities of existing securitization notes bringing card exposures back on balance sheet.



CR6: IRB – Credit risk exposures by portfolio and PD range (continued)

As at October 31, 2020

|   |   | a  | b                                   | c               | d                         | e              | f                               | g               | h                           | i              | j               | k            | l                       |
|---|---|--|-------------------------------------|-----------------|---------------------------|----------------|---------------------------------|-----------------|-----------------------------|----------------|-----------------|--------------|-------------------------|
|   | (Millions of Canadian dollars, except as otherwise noted) | Original on-balance sheet gross exposure | Off-balance sheet exposures pre CCF | Average CCF (%) | EAD post CRM and post-CCF | Average PD (%) | Number of obligors <sup>2</sup> | Average LGD (%) | Average maturity (in years) | RWA            | RWA density (%) | EL           | Provisions <sup>3</sup> |
|   | PD scale <sup>1</sup>                                     |  |                                     |                 |                           |                |                                 |                 |                             |                |                 |              |                         |
|   | Asset Classes   |  |                                     |                 |                           |                |                                 |                 |                             |                |                 |              |                         |
| 1 | <b>Sovereigns</b>   |  |                                     |                 |                           |                |                                 |                 |                             |                |                 |              |                         |
|   | 0.00 to < 0.15  | 226,752                                  | 23,899                              | 53.93           | 324,585                   | 0.02           | 1,515                           | 27.42           | 1.21                        | 13,458         | 4.2             | 14           |                         |
|   | 0.15 to < 0.25  | 421                                      | 558                                 | 60.52           | 705                       | 0.19           | 182                             | 36.12           | 2.43                        | 245            | 34.8            | -            |                         |
|   | 0.25 to < 0.50  | 135                                      | 102                                 | 55.20           | 191                       | 0.41           | 73                              | 23.53           | 1.27                        | 57             | 29.9            | -            |                         |
|   | 0.50 to < 0.75  | 105                                      | 14                                  | 55.37           | 113                       | 0.72           | 151                             | 26.40           | 3.29                        | 63             | 56.1            | -            |                         |
|   | 0.75 to < 2.50  | 174                                      | 51                                  | 38.96           | 193                       | 1.54           | 195                             | 26.05           | 3.16                        | 134            | 69.6            | 1            |                         |
|   | 2.50 to < 10.00   | 11                                       | 10                                  | 55.12           | 17                        | 3.97           | 14                              | 43.89           | 2.07                        | 23             | 137.6           | -            |                         |
|   | 10.00 to < 100.00   | -  | -                                   | 65.00           | -                         | 29.24          | 4                               | 45.00           | 1.28                        | -              | 252.7           | -            |                         |
|   | 100.00 (default)  | -  | -                                   | -               | -                         | 100.00         | 2                               | 45.00           | 2.50                        | -              | 596.3           | -            |                         |
|   | <b>Total Sovereigns</b>                                   | <b>227,598</b>                           | <b>24,634</b>                       | <b>54.05</b>    | <b>325,804</b>            | <b>0.02</b>    | <b>2,136</b>                    | <b>27.44</b>    | <b>1.22</b>                 | <b>13,980</b>  | <b>4.3</b>      | <b>15</b>    | <b>-</b>                |
| 2 | <b>Banks</b>  |  |                                     |                 |                           |                |                                 |                 |                             |                |                 |              |                         |
|   | 0.00 to < 0.15  | 19,183                                   | 3,151                               | 45.57           | 28,824                    | 0.05           | 168                             | 31.02           | 1.77                        | 4,832          | 16.8            | 5            |                         |
|   | 0.15 to < 0.25  | 297                                      | 301                                 | 43.27           | 820                       | 0.18           | 52                              | 40.88           | 2.08                        | 420            | 51.2            | 1            |                         |
|   | 0.25 to < 0.50  | 207                                      | 69                                  | 49.42           | 253                       | 0.41           | 13                              | 48.12           | 1.94                        | 197            | 77.9            | 1            |                         |
|   | 0.50 to < 0.75  | 241                                      | 130                                 | 40.47           | 297                       | 0.72           | 23                              | 37.65           | 1.32                        | 193            | 65.2            | 1            |                         |
|   | 0.75 to < 2.50  | 182                                      | 278                                 | 46.47           | 313                       | 1.53           | 34                              | 40.01           | 1.34                        | 277            | 88.4            | 2            |                         |
|   | 2.50 to < 10.00   | 50                                       | 33                                  | 44.90           | 65                        | 5.74           | 20                              | 43.47           | 2.27                        | 110            | 168.9           | 2            |                         |
|   | 10.00 to < 100.00   | 1  | -                                   | -               | 1                         | 17.71          | 9                               | 43.83           | 1.13                        | 3              | 242.8           | -            |                         |
|   | 100.00 (default)  | -  | -                                   | -               | -                         | 100.00         | 1                               | 60.00           | 2.50                        | -              | 795.0           | -            |                         |
|   | <b>Total Banks</b>  | <b>20,161</b>                            | <b>3,962</b>                        | <b>45.36</b>    | <b>30,573</b>             | <b>0.10</b>    | <b>320</b>                      | <b>31.61</b>    | <b>1.77</b>                 | <b>6,032</b>   | <b>19.7</b>     | <b>12</b>    | <b>-</b>                |
| 3 | <b>Corporates</b>   |  |                                     |                 |                           |                |                                 |                 |                             |                |                 |              |                         |
|   | 0.00 to < 0.15  | 24,304                                   | 103,498                             | 52.25           | 78,661                    | 0.09           | 11,910                          | 39.61           | 2.17                        | 20,096         | 25.6            | 28           |                         |
|   | 0.15 to < 0.25  | 25,751                                   | 62,858                              | 51.23           | 56,759                    | 0.19           | 12,877                          | 41.11           | 2.37                        | 23,474         | 41.4            | 45           |                         |
|   | 0.25 to < 0.50  | 22,701                                   | 23,742                              | 50.08           | 33,107                    | 0.41           | 9,779                           | 36.86           | 2.29                        | 17,194         | 51.9            | 51           |                         |
|   | 0.50 to < 0.75  | 23,031                                   | 24,504                              | 52.14           | 33,690                    | 0.71           | 10,040                          | 35.33           | 2.55                        | 21,875         | 64.9            | 85           |                         |
|   | 0.75 to < 2.50  | 44,272                                   | 34,571                              | 49.11           | 55,880                    | 1.55           | 23,211                          | 34.00           | 2.19                        | 41,699         | 74.6            | 295          |                         |
|   | 2.50 to < 10.00   | 28,912                                   | 30,299                              | 50.81           | 38,517                    | 4.02           | 18,398                          | 34.97           | 2.40                        | 40,205         | 104.4           | 543          |                         |
|   | 10.00 to < 100.00   | 3,177                                    | 2,724                               | 49.69           | 3,762                     | 16.15          | 3,409                           | 33.74           | 2.21                        | 5,671          | 150.7           | 208          |                         |
|   | 100.00 (default)  | 2,004                                    | 693                                 | 26.66           | 2,089                     | 100.00         | 1,299                           | 34.79           | 2.18                        | 4,945          | 236.7           | 592          |                         |
|   | <b>Total Corporates</b>                                   | <b>174,152</b>                           | <b>282,889</b>                      | <b>51.23</b>    | <b>302,465</b>            | <b>1.87</b>    | <b>90,923</b>                   | <b>37.38</b>    | <b>2.30</b>                 | <b>175,159</b> | <b>57.9</b>     | <b>1,847</b> | <b>817</b>              |
| 4 | <b>Total Wholesale</b>                                    | <b>421,911</b>                           | <b>311,485</b>                      | <b>51.38</b>    | <b>658,842</b>            | <b>0.87</b>    | <b>93,379</b>                   | <b>32.20</b>    | <b>1.74</b>                 | <b>195,171</b> | <b>29.6</b>     | <b>1,874</b> | <b>817</b>              |

<sup>1</sup> Refer to "Internal ratings map" under the Credit Risk Assessment section in our 2020 Annual Report MD&A.

<sup>2</sup> Number of obligors is defined as the number of borrowers in each PD band. For Retail exposures, a borrower can appear in multiple PD bands if the borrower has more than one type of product with the bank. Wholesale obligors are reflected as unique borrowers. For example, sovereign obligors include central banks or agencies, public sector entities and multilateral development banks which are each reflected as unique borrowers in the sovereign asset class. Effective Q3 2020, retail borrowers with both Visa and Mastercard are counted as one borrower in the asset class qualifying revolving retail.

<sup>3</sup> Provisions reflect only IFRS 9 Stage 3 allowances under the IRB portfolio.

**CR6: IRB – Credit risk exposures by portfolio and PD range (continued)**

As at October 31, 2020

|   |   | a  | b                                   | c               | d                         | e              | f                               | g               | h                           | i             | j               | k          | l                       |
|---|---|--|-------------------------------------|-----------------|---------------------------|----------------|---------------------------------|-----------------|-----------------------------|---------------|-----------------|------------|-------------------------|
| (Millions of Canadian dollars, except as otherwise noted) | PD scale <sup>1</sup>   | Original on-balance sheet gross exposure | Off-balance sheet exposures pre CCF | Average CCF (%) | EAD post CRM and post-CCF | Average PD (%) | Number of obligors <sup>2</sup> | Average LGD (%) | Average maturity (in years) | RWA           | RWA density (%) | EL         | Provisions <sup>3</sup> |
| <b>Asset Classes</b>                                      |   |  |                                     |                 |                           |                |                                 |                 |                             |               |                 |            |                         |
| <b>5</b>  | <b>Retail insured exposure secured by real estate<sup>4</sup></b> |  |                                     |                 |                           |                |                                 |                 |                             |               |                 |            |                         |
|   | 0.00 to < 0.15  | 22,668                                   |                                     |                 | 1,742                     | 0.14           | 141,514                         | 16.70           |                             | 95            | 5.4             | -          |                         |
|   | 0.15 to < 0.25  | -  |                                     |                 | -                         | -              | -                               | -               |                             | -             | -               | -          |                         |
|   | 0.25 to < 0.50  | 43,146                                   |                                     |                 | 1,406                     | 0.32           | 190,106                         | 15.43           |                             | 131           | 9.3             | 1          |                         |
|   | 0.50 to < 0.75  | 317                                      |                                     |                 | -                         | -              | -                               | -               |                             | -             | -               | -          |                         |
|   | 0.75 to < 2.50  | 8,684                                    |                                     |                 | 263                       | 1.25           | 40,636                          | 13.69           |                             | 55            | 20.8            | -          |                         |
|   | 2.50 to < 10.00   | 4,381                                    |                                     |                 | -                         | 5.94           | 22,708                          | 10.70           |                             | -             | 17.1            | -          |                         |
|   | 10.00 to < 100.00   | 853                                      |                                     |                 | -                         | 21.66          | 3,342                           | 11.80           |                             | -             | 25.8            | -          |                         |
|   | 100.00 (default)  | 257                                      |                                     |                 | -                         | -              | 1,337                           | -               |                             | -             | -               | -          |                         |
|   | <b>Total Retail insured exposure secured by real estate</b>       | <b>80,306</b>                            |                                     |                 | <b>3,411</b>              | <b>0.30</b>    | <b>399,643</b>                  | <b>15.95</b>    |                             | <b>281</b>    | <b>8.2</b>      | <b>1</b>   | <b>2</b>                |
| <b>6</b>  | <b>Uninsured residential mortgages</b>                            |  |                                     |                 |                           |                |                                 |                 |                             |               |                 |            |                         |
|   | 0.00 to < 0.15  | 159,499                                  | 340                                 | 100.00          | 159,838                   | 0.13           | 622,438                         | 17.58           |                             | 8,494         | 5.3             | 36         |                         |
|   | 0.15 to < 0.25  | 48                                       | 22                                  | 100.00          | 70                        | 0.22           | 71                              | 72.24           |                             | 23            | 32.9            | -          |                         |
|   | 0.25 to < 0.50  | 58                                       | 317                                 | 100.00          | 375                       | 0.33           | 236                             | 14.59           |                             | 36            | 9.6             | -          |                         |
|   | 0.50 to < 0.75  | -  | -                                   | -               | -                         | -              | -                               | -               |                             | -             | -               | -          |                         |
|   | 0.75 to < 2.50  | 16,210                                   | 284                                 | 100.00          | 16,494                    | 0.91           | 57,586                          | 18.44           |                             | 3,791         | 23.0            | 28         |                         |
|   | 2.50 to < 10.00   | 4,769                                    | 20                                  | 100.00          | 4,789                     | 4.27           | 21,680                          | 17.90           |                             | 2,719         | 56.8            | 37         |                         |
|   | 10.00 to < 100.00   | 862                                      | -                                   | 100.00          | 863                       | 22.32          | 4,022                           | 17.80           |                             | 852           | 98.7            | 34         |                         |
|   | 100.00 (default)  | 213                                      | -                                   | -               | 213                       | 100.00         | 1,088                           | 17.14           |                             | 35            | 16.3            | 38         |                         |
|   | <b>Total Uninsured residential mortgages</b>                      | <b>181,659</b>                           | <b>983</b>                          | <b>100.00</b>   | <b>182,642</b>            | <b>0.53</b>    | <b>707,121</b>                  | <b>17.68</b>    |                             | <b>15,950</b> | <b>8.7</b>      | <b>173</b> | <b>41</b>               |

<sup>1</sup> Refer to "Internal ratings map" under the Credit Risk Assessment section in our 2020 Annual Report MD&A.

<sup>2</sup> Number of obligors is defined as the number of borrowers in each PD band. For Retail exposures, a borrower can appear in multiple PD bands if the borrower has more than one type of product with the bank. Wholesale obligors are reflected as unique borrowers. For example, sovereign obligors include central banks or agencies, public sector entities and multilateral development banks which are each reflected as unique borrowers in the sovereign asset class. Effective Q3 2020, retail borrowers with both Visa and Mastercard are counted as one borrower in the asset class qualifying revolving retail.

<sup>3</sup> Provisions reflect only IFRS 9 Stage 3 allowances under the IRB portfolio.

<sup>4</sup> Retail insured exposures secured by real estate includes residential mortgages and other retail. Residential mortgages reflect 98% of this category. Exposures are insured with government and/or private insurance providers.



CR6: IRB – Credit risk exposures by portfolio and PD range (continued)

As at October 31, 2020

|   |  | a  | b                                   | c               | d                         | e              | f                               | g               | h                           | i              | j               | k            | l                       |
|---|--|--|-------------------------------------|-----------------|---------------------------|----------------|---------------------------------|-----------------|-----------------------------|----------------|-----------------|--------------|-------------------------|
| (Millions of Canadian dollars, except as otherwise noted) | PD scale <sup>1</sup>                    | Original on-balance sheet gross exposure | Off-balance sheet exposures pre CCF | Average CCF (%) | EAD post CRM and post-CCF | Average PD (%) | Number of obligors <sup>2</sup> | Average LGD (%) | Average maturity (in years) | RWA            | RWA density (%) | EL           | Provisions <sup>3</sup> |
| <b>Asset Classes</b>                                      |  |  |                                     |                 |                           |                |                                 |                 |                             |                |                 |              |                         |
| 7   | <b>HELOCs</b>                            |  |                                     |                 |                           |                |                                 |                 |                             |                |                 |              |                         |
|   | 0.00 to < 0.15                           | 32,751                                   | 94,249                              | 91.50           | 118,989                   | 0.08           | 757,881                         | 24.58           |                             | 6,320          | 5.3             | 24           |                         |
|   | 0.15 to < 0.25                           | -  | -                                   | -               | -                         | -              | -                               | -               |                             | -              | -               | -            |                         |
|   | 0.25 to < 0.50                           | -  | -                                   | -               | -                         | -              | -                               | -               |                             | -              | -               | -            |                         |
|   | 0.50 to < 0.75                           | 2,519                                    | 1,310                               | 93.31           | 3,741                     | 0.71           | 42,461                          | 24.97           |                             | 986            | 26.4            | 7            |                         |
|   | 0.75 to < 2.50                           | -  | -                                   | -               | -                         | -              | -                               | -               |                             | -              | -               | -            |                         |
|   | 2.50 to < 10.00                          | 1,234                                    | 285                                 | 97.04           | 1,511                     | 4.80           | 16,629                          | 25.16           |                             | 1,241          | 82.2            | 18           |                         |
|   | 10.00 to < 100.00                        | 117                                      | 7                                   | 116.03          | 126                       | 35.07          | 980                             | 24.93           |                             | 185            | 147.1           | 11           |                         |
|   | 100.00 (default)                         | 104                                      | 1                                   | -               | 104                       | 100.00         | 845                             | 25.35           |                             | 57             | 54.7            | 27           |                         |
|   | <b>Total HELOCs</b>                      | <b>36,725</b>                            | <b>95,852</b>                       | <b>91.54</b>    | <b>124,471</b>            | <b>0.28</b>    | <b>818,796</b>                  | <b>24.60</b>    |                             | <b>8,789</b>   | <b>7.1</b>      | <b>87</b>    | <b>27</b>               |
| 8   | <b>Qualifying revolving retail</b>       |  |                                     |                 |                           |                |                                 |                 |                             |                |                 |              |                         |
|   | 0.00 to < 0.15                           | 3,585                                    | 28,576                              | 77.20           | 25,647                    | 0.11           | 4,702,997                       | 93.97           |                             | 1,723          | 6.7             | 28           |                         |
|   | 0.15 to < 0.25                           | 8,977                                    | 38,950                              | 84.13           | 41,746                    | 0.18           | 3,191,236                       | 88.07           |                             | 3,860          | 9.3             | 67           |                         |
|   | 0.25 to < 0.50                           | 430                                      | 4,604                               | 98.84           | 4,981                     | 0.39           | 3,613,760                       | 86.46           |                             | 833            | 16.7            | 17           |                         |
|   | 0.50 to < 0.75                           | 21                                       | 106                                 | 93.99           | 121                       | 0.59           | 7,665                           | 100.03          |                             | 33             | 27.1            | 1            |                         |
|   | 0.75 to < 2.50                           | 6,724                                    | 7,536                               | 83.77           | 13,036                    | 1.30           | 2,513,778                       | 90.29           |                             | 5,745          | 44.1            | 153          |                         |
|   | 2.50 to < 10.00                          | 4,053                                    | 2,231                               | 83.58           | 5,918                     | 3.82           | 1,587,183                       | 89.78           |                             | 5,576          | 94.2            | 201          |                         |
|   | 10.00 to < 100.00                        | 499                                      | 198                                 | 61.08           | 620                       | 29.23          | 414,481                         | 90.75           |                             | 1,641          | 264.7           | 164          |                         |
|   | 100.00 (default)                         | 39                                       | 2                                   | -               | 39                        | 100.00         | 24,062                          | 87.02           |                             | 99             | 253.6           | 27           |                         |
|   | <b>Total Qualifying revolving retail</b> | <b>24,328</b>                            | <b>82,203</b>                       | <b>82.45</b>    | <b>92,108</b>             | <b>0.81</b>    | <b>16,055,162</b>               | <b>90.08</b>    |                             | <b>19,510</b>  | <b>21.2</b>     | <b>658</b>   | <b>26</b>               |
| 9   | <b>Other retail</b>                      |  |                                     |                 |                           |                |                                 |                 |                             |                |                 |              |                         |
|   | 0.00 to < 0.15                           | 29,523                                   | 2,839                               | 86.00           | 31,966                    | 0.12           | 126,595                         | 33.00           |                             | 3,106          | 9.7             | 12           |                         |
|   | 0.15 to < 0.25                           | 2,630                                    | 5,829                               | 85.00           | 7,590                     | 0.20           | 111,336                         | 82.00           |                             | 2,658          | 35.0            | 12           |                         |
|   | 0.25 to < 0.50                           | 8,101                                    | 1,867                               | 102.00          | 9,996                     | 0.33           | 486,294                         | 69.00           |                             | 4,102          | 41.0            | 23           |                         |
|   | 0.50 to < 0.75                           | 410                                      | 582                                 | 96.00           | 968                       | 0.58           | 95,378                          | 97.00           |                             | 771            | 79.6            | 5            |                         |
|   | 0.75 to < 2.50                           | 13,105                                   | 3,068                               | 94.00           | 16,004                    | 1.29           | 596,049                         | 62.00           |                             | 11,542         | 72.1            | 130          |                         |
|   | 2.50 to < 10.00                          | 3,722                                    | 1,132                               | 92.00           | 4,761                     | 4.18           | 263,367                         | 70.00           |                             | 5,096          | 107.0           | 138          |                         |
|   | 10.00 to < 100.00                        | 689                                      | 64                                  | 94.00           | 749                       | 35.06          | 35,949                          | 74.00           |                             | 1,226          | 163.7           | 216          |                         |
|   | 100.00 (default)                         | 72                                       | 1                                   | -               | 72                        | 100.00         | 4,091                           | 66.00           |                             | 114            | 158.3           | 41           |                         |
|   | <b>Total Other retail</b>                | <b>58,252</b>                            | <b>15,382</b>                       | <b>90.00</b>    | <b>72,106</b>             | <b>1.15</b>    | <b>1,719,059</b>                | <b>53.00</b>    |                             | <b>28,615</b>  | <b>39.7</b>     | <b>577</b>   | <b>39</b>               |
| 10  | <b>Total retail</b>                      | <b>381,270</b>                           | <b>194,420</b>                      | <b>92.14</b>    | <b>474,738</b>            | <b>0.61</b>    | <b>19,699,781</b>               | <b>38.89</b>    | -                           | <b>73,145</b>  | <b>15.4</b>     | <b>1,496</b> | <b>135</b>              |
|   | <b>Total</b>                             | <b>803,181</b>                           | <b>505,905</b>                      | <b>67.04</b>    | <b>1,133,580</b>          | <b>0.76</b>    | <b>19,793,160</b>               | <b>35.00</b>    | <b>1.74</b>                 | <b>268,316</b> | <b>24.0</b>     | <b>3,370</b> | <b>952</b>              |

<sup>1</sup> Refer to "Internal ratings map" under the Credit Risk Assessment section in our 2020 Annual Report MD&A.

<sup>2</sup> Number of obligors is defined as the number of borrowers in each PD band. For Retail exposures, a borrower can appear in multiple PD bands if the borrower has more than one type of product with the bank. Wholesale obligors are reflected as unique borrowers. For example, sovereign obligors include central banks or agencies, public sector entities and multilateral development banks which are each reflected as unique borrowers in the sovereign asset class. Effective Q3 2020, retail borrowers with both Visa and Mastercard are counted as one borrower in the asset class qualifying revolving retail.

<sup>3</sup> Provisions reflect only IFRS 9 Stage 3 allowances under the IRB portfolio.

**CR7: IRB – Effect on RWA of credit derivatives used as CRM techniques**

The following table provides the effect of credit derivatives used as mitigation techniques in determining RWA amounts.

As at January 31, 2021

|           | (Millions of Canadian dollars)          | a                          | b          |
|-----------|---|----------------------------|------------|
|           |   | Pre-credit derivatives RWA | Actual RWA |
| 2         | Sovereign - AIRB                        | -                          | -          |
| 4         | Banks - AIRB                            | -                          | -          |
| 6         | Corporate - AIRB                        | -                          | -          |
| 8         | Specialised lending - AIRB              | -                          | -          |
| 9         | Retail - qualifying revolving (QRRE)    | -                          | -          |
| 10        | Retail - residential mortgage exposures | -                          | -          |
| 11        | Retail - SME                            | -                          | -          |
| 12        | Other retail exposures                  | -                          | -          |
| 14        | Equity - AIRB                           | -                          | -          |
| 16        | Purchased receivables - AIRB            | -                          | -          |
| <b>17</b> | <b>Total</b>                            | -                          | -          |

As at October 31, 2020

|           | (Millions of Canadian dollars)          | a                          | b          |
|-----------|---|----------------------------|------------|
|           |   | Pre-credit derivatives RWA | Actual RWA |
| 2         | Sovereign - AIRB                        | -                          | -          |
| 4         | Banks - AIRB                            | -                          | -          |
| 6         | Corporate - AIRB                        | -                          | -          |
| 8         | Specialised lending - AIRB              | -                          | -          |
| 9         | Retail - qualifying revolving (QRRE)    | -                          | -          |
| 10        | Retail - residential mortgage exposures | -                          | -          |
| 11        | Retail - SME                            | -                          | -          |
| 12        | Other retail exposures                  | -                          | -          |
| 14        | Equity - AIRB                           | -                          | -          |
| 16        | Purchased receivables - AIRB            | -                          | -          |
| <b>17</b> | <b>Total</b>                            | -                          | -          |

**CR8: RWA flow statements of credit risk exposures**

The following table presents the changes in Standardized and IRB RWA amounts over the reporting period for the key drivers of credit risk.

|          | (Millions of Canadian dollars)                    | RWA amounts <sup>1</sup> |                        |
|----------|---|--------------------------|------------------------|
|          |   | As at January 31, 2021   | As at October 31, 2020 |
| <b>1</b> | <b>RWA as at end of previous reporting period</b> | <b>394,506</b>           | <b>394,787</b>         |
| 2        | Asset size <sup>2</sup>                           | 9,752                    | (397)                  |
| 3        | Asset quality <sup>3</sup>                        | (1,595)                  | 1,719                  |
| 4        | Model updates <sup>4</sup>                        | 2,927                    | -                      |
| 5        | Methodology and policy <sup>5</sup>               | -                        | -                      |
| 6        | Acquisitions and disposals                        | -                        | -                      |
| 7        | Foreign exchange movements                        | (6,027)                  | (1,315)                |
| 8        | Other   | 1,715                    | (288)                  |
| <b>9</b> | <b>RWA as at end of reporting period</b>          | <b>401,278</b>           | <b>394,506</b>         |

<sup>1</sup> RWA flow amounts include both IRB and Standardized Approach figures reflecting our approved roll-out plan for transition to IRB.

<sup>2</sup> Organic changes in portfolio size and composition (including new business and maturing loans).

<sup>3</sup> Quality of book changes caused by experience such as underlying customer behaviour or demographics and credit mitigation.

<sup>4</sup> Updates to the model to reflect recent experience, model implementation, change in model scope or any change to address model malfunctions including changes through model calibrations/realignments.

<sup>5</sup> Methodology changes to the calculations driven by regulatory policy changes.

**COUNTERPARTY CREDIT RISK**
**CCRA: Qualitative disclosure related to counterparty credit risk**

The table below presents an overview of Pillar 3 disclosure requirements that have been met within our 2020 Annual Report and incorporated by reference into this Pillar 3 report. Our 2020 Annual Report is available free of charge on our website at <http://www.rbc.com/investorrelations>

| Pillar 3 disclosures requirement |  | RBC 2020 Annual Report section    | Sub-section   |
|----------------------------------|--|-----------------------------------|---|
| a)                               | Risk management objectives and policies related to counterparty credit risk  | Credit risk                       | Credit risk assessment – <i>Counterparty credit risk</i>  |
|                                  |  | Consolidated Financial Statements | Note 8 - Derivative financial instruments and hedging activities – <i>Derivative-related credit risk</i>  |
| b)                               | The method used to assign the operating limits defined in terms of internal capital for counterparty credit exposures and for CCP exposures    | Credit risk                       | Credit risk assessment – <i>Counterparty credit risk</i>  |
| c)                               | Policies relating to guarantees and other risk mitigants and assessments concerning counterparty credit risk, including exposures towards CCPs | Credit risk                       | Credit risk assessment – <i>Counterparty credit risk</i>  |
|                                  |  | Consolidated Financial Statements | Note 8 - Derivative financial instruments and hedging activities – <i>Derivative-related credit risk</i><br>Note 30 - Offsetting financial assets and financial liabilities |
| d)                               | Policies with respect to wrong-way risk exposures  | Credit risk                       | Credit risk assessment – <i>Wrong-way risk</i>  |
| e)                               | The impact in terms of the amount of collateral that the bank would be required to provide given a credit rating downgrade                     | Liquidity and funding risk        | Credit ratings  |

**CCR1: Analysis of counterparty credit risk (CCR) exposure by approach**

The following table provides a comprehensive view of the methods used to calculate counterparty credit risk exposures and the main parameters used within each method, if applicable. Refer to CCR 8 for our central counterparty clearing house exposures. Figures below reflect both house and client trades.

As at January 31, 2021

|          |  | a                | b                         | c    | d                                       | e                         | f                |
|----------|--|------------------|---------------------------|------|---|---------------------------|------------------|
|          | (Millions of Canadian dollars, except as otherwise noted)    | Replacement Cost | Potential future exposure | EEPE | Alpha used for computing regulatory EAD | EAD post-CRM <sup>1</sup> | RWA <sup>2</sup> |
| 1        | SA-CCR (for derivatives) <sup>1,2</sup>                      | 14,862           | 33,721                    |      | 1.4                                     | 67,737                    | 26,764           |
| 1a       | Current Exposure Method (CEM - for derivatives)              |                  |                           |      |   |                           |                  |
| 2        | Internal Model Method (for derivatives and SFTs)             |                  |                           |      |   |                           |                  |
| 3        | Simple Approach for credit risk mitigation (for SFTs)        |                  |                           |      |   |                           |                  |
| 4        | Comprehensive Approach for credit risk mitigation (for SFTs) |                  |                           |      |   | 204,160                   | 11,271           |
| 5        | VaR for SFTs   |                  |                           |      |   |                           |                  |
| <b>6</b> | <b>Total</b>   |                  |                           |      |   |                           | <b>38,035</b>    |

<sup>1</sup> Effective Q1 2020, specific wrong way risk is reflected as per OSFI SA-CCR guideline requirement.

<sup>2</sup> RWA includes a calibration adjustment of 1.06% as prescribed by OSFI under the Basel III framework.

As at October 31, 2020

|          |  | a                | b                         | c    | d                                       | e                         | f                |
|----------|--|------------------|---------------------------|------|---|---------------------------|------------------|
|          | (Millions of Canadian dollars, except as otherwise noted)    | Replacement Cost | Potential future exposure | EEPE | Alpha used for computing regulatory EAD | EAD post-CRM <sup>1</sup> | RWA <sup>2</sup> |
| 1        | SA-CCR (for derivatives) <sup>1,2</sup>                      | 16,135           | 31,974                    |      | 1.4                                     | 66,980                    | 25,761           |
| 1a       | Current Exposure Method (CEM - for derivatives)              |                  |                           |      |   |                           |                  |
| 2        | Internal Model Method (for derivatives and SFTs)             |                  |                           |      |   |                           |                  |
| 3        | Simple Approach for credit risk mitigation (for SFTs)        |                  |                           |      |   |                           |                  |
| 4        | Comprehensive Approach for credit risk mitigation (for SFTs) |                  |                           |      |   | 193,684                   | 10,001           |
| 5        | VaR for SFTs   |                  |                           |      |   |                           |                  |
| <b>6</b> | <b>Total</b>   |                  |                           |      |   |                           | <b>35,762</b>    |

<sup>1</sup> Effective Q1 2020, specific wrong way risk is reflected as per OSFI SA-CCR guideline requirement.

<sup>2</sup> RWA includes a calibration adjustment of 1.06% as prescribed by OSFI under the Basel III framework.



**CCR2: Credit valuation adjustment (CVA) capital charge**

The following table presents a breakdown of the CVA capital charge by advanced and standardized approaches.

As at January 31, 2021

| (Millions of Canadian dollars) |   | a                         | b                |
|--------------------------------|---|---------------------------|------------------|
|                                |   | EAD post-CRM <sup>1</sup> | RWA <sup>1</sup> |
|                                | Total portfolios subject to the Advanced CVA capital charge   |                           |                  |
| 1                              | (i) VaR component (including the 3x multiplier)               |                           |                  |
| 2                              | (ii) Stressed VaR component (including the 3x multiplier)     |                           |                  |
| 3                              | All portfolios subject to the Standardized CVA capital Charge | 68,016                    | 18,412           |
| <b>4</b>                       | <b>Total subject to the CVA capital charge</b>                | <b>68,016</b>             | <b>18,412</b>    |

<sup>1</sup> Effective Q1 2019, OSFI has allowed a 0.7 scalar to be applied to the exposure amount determined under SA-CCR for the purpose of determining CVA.

As at October 31, 2020

| (Millions of Canadian dollars) |   | a                         | b                |
|--------------------------------|---|---------------------------|------------------|
|                                |   | EAD post-CRM <sup>1</sup> | RWA <sup>1</sup> |
|                                | Total portfolios subject to the Advanced CVA capital charge   |                           |                  |
| 1                              | (i) VaR component (including the 3x multiplier)               |                           |                  |
| 2                              | (ii) Stressed VaR component (including the 3x multiplier)     |                           |                  |
| 3                              | All portfolios subject to the Standardized CVA capital Charge | 67,352                    | 18,171           |
| <b>4</b>                       | <b>Total subject to the CVA capital charge</b>                | <b>67,352</b>             | <b>18,171</b>    |

<sup>1</sup> Effective Q1 2019, OSFI has allowed a 0.7 scalar to be applied to the exposure amount determined under SA-CCR for the purpose of determining CVA.

**CCR3: Standardized approach – CCR exposures by regulatory portfolio and risk weights**

The following table presents a breakdown of counterparty credit risk exposures calculated according to the standardized approach by portfolio and risk weight.

As at January 31, 2021

| Risk weight<br>Regulatory portfolio<br>(Millions of Canadian dollars) | a  | b   | c          | d   | e   | f            | g    | h      | i                     |
|---|----|-----|------------|-----|-----|--------------|------|--------|-----------------------|
|   | 0% | 10% | 20%        | 50% | 75% | 100%         | 150% | Others | Total credit exposure |
| Sovereigns  | -  | -   | -          | -   | -   | -            | -    | -      | -                     |
| Non-central government public sector entities (PSEs)                  | -  | -   | -          | -   | -   | -            | -    | -      | -                     |
| Multilateral development banks (MDBs)                                 | -  | -   | -          | -   | -   | -            | -    | -      | -                     |
| Banks   | -  | -   | 16         | -   | -   | 130          | -    | -      | 146                   |
| Securities firms  | -  | -   | 95         | -   | -   | 8            | -    | -      | 103                   |
| Corporates  | -  | -   | 75         | -   | -   | 1,767        | -    | -      | 1,842                 |
| Regulatory retail portfolios  | -  | -   | -          | -   | -   | -            | -    | -      | -                     |
| Other assets  | -  | -   | -          | -   | -   | -            | -    | -      | -                     |
| <b>Total</b>  | -  | -   | <b>186</b> | -   | -   | <b>1,905</b> | -    | -      | <b>2,091</b>          |

As at October 31, 2020

| Risk weight<br>Regulatory portfolio<br>(Millions of Canadian dollars) | a  | b   | c          | d   | e   | f            | g    | h      | i                     |
|---|----|-----|------------|-----|-----|--------------|------|--------|-----------------------|
|   | 0% | 10% | 20%        | 50% | 75% | 100%         | 150% | Others | Total credit exposure |
| Sovereigns  | -  | -   | -          | -   | -   | -            | -    | -      | -                     |
| Non-central government public sector entities (PSEs)                  | -  | -   | -          | -   | -   | -            | -    | -      | -                     |
| Multilateral development banks (MDBs)                                 | -  | -   | -          | -   | -   | -            | -    | -      | -                     |
| Banks   | -  | -   | 17         | -   | -   | 127          | -    | -      | 144                   |
| Securities firms  | -  | -   | 120        | -   | -   | 27           | -    | -      | 147                   |
| Corporates  | -  | -   | 304        | -   | -   | 1,918        | -    | -      | 2,222                 |
| Regulatory retail portfolios  | -  | -   | -          | -   | -   | -            | -    | -      | -                     |
| Other assets  | -  | -   | -          | -   | -   | -            | -    | -      | -                     |
| <b>Total</b>  | -  | -   | <b>441</b> | -   | -   | <b>2,072</b> | -    | -      | <b>2,513</b>          |

**CCR4: IRB – CCR exposures by portfolio and PD scale**

The following table presents a detailed view of CCR exposures subject to IRB approach by asset classes and PD scale.

As at January 31, 2021

| (Millions of Canadian dollars, except as otherwise noted) | PD scale <sup>1</sup> | a              | b              | c                  | d               | e                           | f             | g               |
|---|-----------------------|----------------|----------------|--------------------|-----------------|-----------------------------|---------------|-----------------|
|   |                       | EAD post-CRM   | Average PD (%) | Number of obligors | Average LGD (%) | Average maturity (in years) | RWA           | RWA density (%) |
| <b>Asset classes</b>                                      |                       |                |                |                    |                 |                             |               |                 |
| <b>Sovereigns</b>   | 0.00 to < 0.15        | 52,913         | 0.03           | 323                | 8.95            | 1.08                        | 1,718         | 3               |
|   | 0.15 to < 0.25        | 406            | 0.21           | 18                 | 40.20           | 0.82                        | 116           | 28              |
|   | 0.25 to < 0.50        | 88             | 0.41           | 11                 | 44.94           | 1.02                        | 44            | 50              |
|   | 0.50 to < 0.75        | 16             | 0.72           | 6                  | 35.71           | 2.97                        | 14            | 86              |
|   | 0.75 to < 2.50        | 6              | 1.40           | 4                  | 45.00           | 1.00                        | 6             | 94              |
|   | 2.50 to < 10.00       | -              | 4.01           | 1                  | 45.00           | 4.75                        | 1             | 177             |
|   | 10.00 to < 100.00     | -              | 15.12          | 1                  | 45.00           | 1.00                        | -             | 218             |
|   | 100.00 (default)      | 30             | 100.00         | 1                  | 25.00           | 4.99                        | 99            | 331             |
| <b>Total sovereigns</b>                                   |                       | <b>53,459</b>  | <b>0.09</b>    | <b>365</b>         | <b>9.27</b>     | <b>1.08</b>                 | <b>1,998</b>  | <b>4</b>        |
| <b>Banks</b>  | 0.00 to < 0.15        | 91,223         | 0.08           | 209                | 13.15           | 0.31                        | 5,533         | 6               |
|   | 0.15 to < 0.25        | 16,527         | 0.17           | 97                 | 12.06           | 0.19                        | 1,525         | 9               |
|   | 0.25 to < 0.50        | 1,911          | 0.41           | 24                 | 12.82           | 0.34                        | 343           | 18              |
|   | 0.50 to < 0.75        | 2,015          | 0.72           | 21                 | 5.86            | 0.05                        | 189           | 9               |
|   | 0.75 to < 2.50        | 1,178          | 1.17           | 25                 | 3.78            | 0.10                        | 93            | 8               |
|   | 2.50 to < 10.00       | 165            | 2.87           | 10                 | 45.00           | 1.38                        | 197           | 120             |
|   | 10.00 to < 100.00     | -              | -              | -                  | -               | -                           | -             | -               |
|   | 100.00 (default)      | -              | -              | -                  | -               | -                           | -             | -               |
| <b>Total banks</b>  |                       | <b>113,019</b> | <b>0.13</b>    | <b>386</b>         | <b>12.80</b>    | <b>0.28</b>                 | <b>7,880</b>  | <b>7</b>        |
| <b>Corporates</b>   | 0.00 to < 0.15        | 74,365         | 0.08           | 5,818              | 31.11           | 0.54                        | 9,013         | 12              |
|   | 0.15 to < 0.25        | 14,434         | 0.18           | 1,714              | 34.52           | 1.18                        | 4,430         | 31              |
|   | 0.25 to < 0.50        | 2,875          | 0.41           | 512                | 44.47           | 1.94                        | 1,891         | 66              |
|   | 0.50 to < 0.75        | 5,441          | 0.72           | 358                | 44.17           | 2.27                        | 4,649         | 85              |
|   | 0.75 to < 2.50        | 2,958          | 1.53           | 418                | 38.62           | 2.11                        | 2,751         | 93              |
|   | 2.50 to < 10.00       | 3,178          | 3.70           | 435                | 34.43           | 1.70                        | 3,321         | 105             |
|   | 10.00 to < 100.00     | 62             | 18.55          | 28                 | 35.93           | 2.40                        | 114           | 185             |
|   | 100.00 (default)      | 12             | 100.00         | 8                  | 27.90           | 1.00                        | 46            | 370             |
| <b>Total corporates</b>                                   |                       | <b>103,325</b> | <b>0.31</b>    | <b>9,291</b>       | <b>32.96</b>    | <b>0.84</b>                 | <b>26,215</b> | <b>25</b>       |
| <b>Total</b>  |                       | <b>269,803</b> | <b>0.14</b>    | <b>10,042</b>      | <b>19.82</b>    | <b>0.65</b>                 | <b>36,093</b> | <b>13</b>       |

<sup>1</sup> Refer to "Internal ratings map" in the Credit risk assessment section in our 2020 Annual Report MD&A.

**CCR4: IRB – CCR exposures by portfolio and PD scale (continued)**

As at October 31, 2020

| (Millions of Canadian dollars, except as otherwise noted) | PD scale <sup>1</sup> | a              | b              | c                  | d               | e                           | f             | g               |
|---|-----------------------|----------------|----------------|--------------------|-----------------|-----------------------------|---------------|-----------------|
|   |                       | EAD post-CRM   | Average PD (%) | Number of obligors | Average LGD (%) | Average maturity (in years) | RWA           | RWA density (%) |
| <b>Asset classes</b>                                      |                       |                |                |                    |                 |                             |               |                 |
| <b>Sovereigns</b>   | 0.00 to < 0.15        | 57,867         | 0.04           | 342                | 8.37            | 1.20                        | 1,758         | 3               |
|   | 0.15 to < 0.25        | 346            | 0.21           | 19                 | 41.91           | 1.08                        | 109           | 31              |
|   | 0.25 to < 0.50        | 39             | 0.41           | 10                 | 44.85           | 1.04                        | 20            | 50              |
|   | 0.50 to < 0.75        | 16             | 0.72           | 4                  | 35.16           | 4.01                        | 16            | 103             |
|   | 0.75 to < 2.50        | 5              | 1.81           | 3                  | 45.00           | 1.00                        | 7             | 119             |
|   | 2.50 to < 10.00       | 5              | 2.80           | 2                  | 45.00           | 1.31                        | 6             | 118             |
|   | 10.00 to < 100.00     | -              | -              | -                  | -               | -                           | -             | -               |
|   | 100.00 (default)      | -              | -              | -                  | -               | -                           | -             | -               |
| <b>Total sovereigns</b>                                   |                       | <b>58,278</b>  | <b>0.04</b>    | <b>380</b>         | <b>8.61</b>     | <b>1.20</b>                 | <b>1,916</b>  | <b>3</b>        |
| <b>Banks</b>  |                       |                |                |                    |                 |                             |               |                 |
|   | 0.00 to < 0.15        | 84,585         | 0.08           | 213                | 13.14           | 0.31                        | 5,183         | 6               |
|   | 0.15 to < 0.25        | 15,439         | 0.17           | 101                | 11.50           | 0.19                        | 1,372         | 9               |
|   | 0.25 to < 0.50        | 1,883          | 0.41           | 28                 | 14.21           | 0.34                        | 369           | 20              |
|   | 0.50 to < 0.75        | 2,182          | 0.72           | 19                 | 4.03            | 0.06                        | 149           | 7               |
|   | 0.75 to < 2.50        | 1,321          | 1.30           | 25                 | 10.63           | 0.17                        | 295           | 22              |
|   | 2.50 to < 10.00       | 218            | 3.03           | 10                 | 45.00           | 1.19                        | 260           | 120             |
|   | 10.00 to < 100.00     | -              | -              | -                  | -               | -                           | -             | -               |
|   | 100.00 (default)      | -              | -              | -                  | -               | -                           | -             | -               |
| <b>Total banks</b>  |                       | <b>105,628</b> | <b>0.14</b>    | <b>396</b>         | <b>12.77</b>    | <b>0.29</b>                 | <b>7,628</b>  | <b>7</b>        |
| <b>Corporates</b>   |                       |                |                |                    |                 |                             |               |                 |
|   | 0.00 to < 0.15        | 69,394         | 0.08           | 5,803              | 31.33           | 0.59                        | 8,657         | 12              |
|   | 0.15 to < 0.25        | 12,298         | 0.18           | 1,757              | 36.89           | 1.35                        | 4,077         | 33              |
|   | 0.25 to < 0.50        | 2,565          | 0.41           | 522                | 44.33           | 1.94                        | 1,655         | 65              |
|   | 0.50 to < 0.75        | 4,823          | 0.72           | 341                | 43.83           | 2.39                        | 4,178         | 87              |
|   | 0.75 to < 2.50        | 1,967          | 1.52           | 440                | 37.58           | 2.18                        | 1,783         | 91              |
|   | 2.50 to < 10.00       | 3,063          | 3.79           | 478                | 35.81           | 1.73                        | 3,362         | 110             |
|   | 10.00 to < 100.00     | 112            | 14.23          | 22                 | 42.42           | 3.64                        | 257           | 229             |
|   | 100.00 (default)      | 23             | 100.00         | 16                 | 29.91           | 1.00                        | 89            | 396             |
| <b>Total corporates</b>                                   |                       | <b>94,245</b>  | <b>0.33</b>    | <b>9,379</b>       | <b>33.33</b>    | <b>0.90</b>                 | <b>24,058</b> | <b>26</b>       |
| <b>Total</b>  |                       | <b>258,151</b> | <b>0.19</b>    | <b>10,155</b>      | <b>19.34</b>    | <b>0.72</b>                 | <b>33,602</b> | <b>13</b>       |

<sup>1</sup> Refer to "Internal ratings map" in the Credit risk assessment section in our 2020 Annual Report MD&A.

**CCR8: Exposures to central counterparties**

The following table presents a comprehensive view of our exposures to central counterparty clearing houses (CCPs), including due to operations, margins and contributions to default funds, and related RWA.

As at January 31, 2021

| (Millions of Canadian dollars) |   | a              | b          |
|--------------------------------|---|----------------|------------|
|                                |   | EAD (post-CRM) | RWA        |
| <b>1</b>                       | <b>Exposures to QCCPs (total)</b>   | <b>30,823</b>  | <b>437</b> |
| 2                              | Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which     | 16,747         | 413        |
| 3                              | (i) OTC derivatives   | 4,905          | 176        |
| 4                              | (ii) Exchange-traded derivatives  | 7,044          | 141        |
| 5                              | (iii) Securities financing transactions   | 4,798          | 96         |
| 6                              | (iv) Netting sets where cross-product netting has been approved                                       | -              | -          |
| 7                              | Segregated initial margin   | 4,102          |            |
| 8                              | Non-segregated initial margin   | 3,336          | -          |
| 9                              | Pre-funded default fund contributions   | 1,556          | 24         |
| 10                             | Unfunded default fund contributions <sup>1</sup>  | 5,082          | -          |
| <b>11</b>                      | <b>Exposures to non-QCCPs (total)</b>   |                |            |
| 12                             | Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which |                |            |
| 13                             | (i) OTC derivatives   |                |            |
| 14                             | (ii) Exchange-traded derivatives  |                |            |
| 15                             | (iii) Securities financing transactions   |                |            |
| 16                             | (iv) Netting sets where cross-product netting has been approved                                       |                |            |
| 17                             | Segregated initial margin   |                |            |
| 18                             | Non-segregated initial margin   |                |            |
| 19                             | Pre-funded default fund contributions   |                |            |
| 20                             | Unfunded default fund contributions   |                |            |

<sup>1</sup> Unfunded default fund contributions are risk weighted at 0%.



## CCR8: Exposures to central counterparties (continued)

As at October 31, 2020

| (Millions of Canadian dollars) |   | a              | b          |
|--------------------------------|---|----------------|------------|
|                                |   | EAD (post-CRM) | RWA        |
| <b>1</b>                       | <b>Exposures to QCCPs (total)</b>   | <b>29,729</b>  | <b>382</b> |
| 2                              | Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which     | 15,354         | 360        |
| 3                              | (i) OTC derivatives   | 3,596          | 124        |
| 4                              | (ii) Exchange-traded derivatives  | 8,980          | 180        |
| 5                              | (iii) Securities financing transactions   | 2,778          | 56         |
| 6                              | (iv) Netting sets where cross-product netting has been approved                                       | -              | -          |
| 7                              | Segregated initial margin   | 4,884          |            |
| 8                              | Non-segregated initial margin   | 3,046          | -          |
| 9                              | Pre-funded default fund contributions   | 1,229          | 22         |
| 10                             | Unfunded default fund contributions <sup>1</sup>  | 5,216          | -          |
| <b>11</b>                      | <b>Exposures to non-QCCPs (total)</b>   |                |            |
| 12                             | Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which |                |            |
| 13                             | (i) OTC derivatives   |                |            |
| 14                             | (ii) Exchange-traded derivatives  |                |            |
| 15                             | (iii) Securities financing transactions   |                |            |
| 16                             | (iv) Netting sets where cross-product netting has been approved                                       |                |            |
| 17                             | Segregated initial margin   |                |            |
| 18                             | Non-segregated initial margin   |                |            |
| 19                             | Pre-funded default fund contributions   |                |            |
| 20                             | Unfunded default fund contributions   |                |            |

<sup>1</sup> Unfunded default fund contributions are risk weighted at 0%.

**SECURITIZATION**
**SECA: Qualitative disclosure requirements related to securitization exposures**

The table below presents an overview of Pillar 3 disclosure requirements that have been met within our 2020 Annual Report and incorporated by reference into this Pillar 3 report. Our 2020 Annual Report is available free of charge on our website at <http://www.rbc.com/investorrelations>

| Pillar 3 disclosures requirement |   | RBC 2020 Annual Report section                          | Sub-section   |
|----------------------------------|---|---|---|
| a)                               | Objectives in relation to securitization activities   | Off-balance sheet arrangements                          | Off-balance sheet arrangements  |
|                                  |   | Consolidated Financial Statements                       | Note 6 - Derecognition of financial assets  |
|                                  |   | Consolidated Financial Statements                       | Note 7 - Structured entities  |
| b)                               | List of SPEs where RBC is sponsor / provides implicit support   | Consolidated Financial Statements                       | Note 7 - Structured entities  |
| c)                               | Accounting policies for securitization  | Consolidated Financial Statements                       | Note 2 - Summary of significant accounting policies, estimates and judgments<br>- Basis of consolidation<br>- Derecognition of financial assets |
|                                  |   | Critical accounting policies and estimates              | Consolidation of structured entities  |
| d)                               | The names of external credit assessment institution (ECAIs) used for securitizations and the types of securitization exposure for which each agency is used | Capital Management (also refer to CRD in this document) | Regulatory capital approach for securitization exposures  |
| e)                               | Use of Basel IAA for capital purposes   | Credit risk   | n/a   |
|                                  |   | Capital Management                                      | Regulatory capital approach for securitization exposures  |
| f)                               | Use of other internal assessment for capital purposes   | Credit risk   | Credit risk assessment  |

**SEC1: IRB – Securitization exposures in the banking book**

The following table presents the breakdown of our balance sheet banking book carrying values by our role and type.

As at January 31, 2021

| (Millions of Canadian dollars) |                                       | a                                    | b         | c         | e                                 | f         | g             | i                                  | j         | k            |
|--------------------------------|---------------------------------------|--------------------------------------|-----------|-----------|-----------------------------------|-----------|---------------|------------------------------------|-----------|--------------|
|                                |                                       | Bank acts as originator <sup>1</sup> |           |           | Bank acts as sponsor <sup>2</sup> |           |               | Bank acts as investor <sup>3</sup> |           |              |
|                                |                                       | Traditional                          | Synthetic | Sub-total | Traditional                       | Synthetic | Sub-total     | Traditional                        | Synthetic | Sub-total    |
| <b>1</b>                       | <b>Retail (total)</b>                 | -                                    | -         | -         | <b>39,299</b>                     | -         | <b>39,299</b> | <b>199</b>                         | -         | <b>199</b>   |
|                                | - of which                            |                                      |           |           |                                   |           |               |                                    |           |              |
| 2                              | residential mortgage                  | -                                    | -         | -         | 1,847                             | -         | 1,847         | -                                  | -         | -            |
| 3                              | credit card                           | -                                    | -         | -         | 7,369                             | -         | 7,369         | 45                                 | -         | 45           |
| 4                              | other retail exposures                | -                                    | -         | -         | 30,083                            | -         | 30,083        | 154                                | -         | 154          |
| 4a                             | of which student loans                | -                                    | -         | -         | 3,722                             | -         | 3,722         | 92                                 | -         | 92           |
| 4b                             | of which auto loans and leases        | -                                    | -         | -         | 20,349                            | -         | 20,349        | 62                                 | -         | 62           |
| 4c                             | of which consumer loans               | -                                    | -         | -         | 6,009                             | -         | 6,009         | -                                  | -         | -            |
| 4d                             | of which other retail                 | -                                    | -         | -         | 3                                 | -         | 3             | -                                  | -         | -            |
| 5                              | re-securitization                     | -                                    | -         | -         | -                                 | -         | -             | -                                  | -         | -            |
| <b>6</b>                       | <b>Wholesale (total)</b>              | -                                    | -         | -         | <b>13,888</b>                     | -         | <b>13,888</b> | <b>9,420</b>                       | -         | <b>9,420</b> |
|                                | - of which                            |                                      |           |           |                                   |           |               |                                    |           |              |
| 7                              | loans to corporates                   | -                                    | -         | -         | 2,696                             | -         | 2,696         | 8,227                              | -         | 8,227        |
| 8                              | commercial mortgage                   | -                                    | -         | -         | -                                 | -         | -             | 420                                | -         | 420          |
| 9                              | lease and receivables                 | -                                    | -         | -         | -                                 | -         | -             | -                                  | -         | -            |
| 10                             | other wholesale                       | -                                    | -         | -         | 11,192                            | -         | 11,192        | 773                                | -         | 773          |
| 10a                            | of which dealer floor plan receivable | -                                    | -         | -         | 2,060                             | -         | 2,060         | -                                  | -         | -            |
| 10b                            | of which equipment receivable         | -                                    | -         | -         | 3,529                             | -         | 3,529         | -                                  | -         | -            |
| 10c                            | of which trade receivable             | -                                    | -         | -         | -                                 | -         | -             | -                                  | -         | -            |
| 10d                            | of which other wholesale              | -                                    | -         | -         | 5,603                             | -         | 5,603         | 773                                | -         | 773          |
| 11                             | re-securitization                     | -                                    | -         | -         | -                                 | -         | -             | -                                  | -         | -            |

<sup>1</sup> Bank acts as originator reflects securitization activities in which we securitize our own assets (e.g. Golden credit card securitization).

<sup>2</sup> Bank acts as sponsor reflects securitization activities in which RBC works with its client to originate securitization transactions. RBC provides the liquidity and credit enhancement facilities to the SPE.

<sup>3</sup> Bank acts as investor reflects purchases of securitization assets from the market.

Effective Q1 2021, under the Securitization Framework, OSFI requires that any securitizations involving a bank's own underlying assets must meet a 60% significant risk transfer test in order to recognize securitization risk transference to a third party. This requirement was not applicable in prior quarters under transitional arrangements allowed by OSFI. In Q1 2021, our Golden Credit Card Trust (GCCT) credit cards securitization, due to retained holdings, did not meet this criteria and are no longer eligible to be recognized as a securitization for regulatory capital purposes. As such, the underlying credit cards have been risk-weighted under the Credit Risk framework under the asset exposure class qualifying revolving retail.

**SEC1: IRB – Securitization exposures in the banking book (continued)**

As at October 31, 2020

| (Millions of Canadian dollars) |                                       | a                                    | b         | c            | e                                 | f         | g             | i                                  | j         | k             |
|--------------------------------|---------------------------------------|--------------------------------------|-----------|--------------|-----------------------------------|-----------|---------------|------------------------------------|-----------|---------------|
|                                |                                       | Bank acts as originator <sup>1</sup> |           |              | Bank acts as sponsor <sup>2</sup> |           |               | Bank acts as investor <sup>3</sup> |           |               |
|                                |                                       | Traditional                          | Synthetic | Sub-total    | Traditional                       | Synthetic | Sub-total     | Traditional                        | Synthetic | Sub-total     |
| <b>1</b>                       | <b>Retail (total)</b>                 | <b>1,189</b>                         | -         | <b>1,189</b> | <b>39,001</b>                     | -         | <b>39,001</b> | <b>245</b>                         | -         | <b>245</b>    |
|                                | - of which                            |                                      |           |              |                                   |           |               |                                    |           |               |
| 2                              | residential mortgage                  | -                                    | -         | -            | 1,624                             | -         | 1,624         | -                                  | -         | -             |
| 3                              | credit card                           | 1,167                                | -         | 1,167        | 7,613                             | -         | 7,613         | 47                                 | -         | 47            |
| 4                              | other retail exposures                | 22                                   | -         | 22           | 29,764                            | -         | 29,764        | 198                                | -         | 198           |
| 4a                             | of which student loans                | -                                    | -         | -            | 3,836                             | -         | 3,836         | 99                                 | -         | 99            |
| 4b                             | of which auto loans and leases        | -                                    | -         | -            | 19,864                            | -         | 19,864        | 99                                 | -         | 99            |
| 4c                             | of which consumer loans               | -                                    | -         | -            | 6,064                             | -         | 6,064         | -                                  | -         | -             |
| 4d                             | of which other retail                 | 22                                   | -         | 22           | -                                 | -         | -             | -                                  | -         | -             |
| 5                              | re-securitization                     | -                                    | -         | -            | -                                 | -         | -             | -                                  | -         | -             |
| <b>6</b>                       | <b>Wholesale (total)</b>              | -                                    | -         | -            | <b>13,610</b>                     | -         | <b>13,610</b> | <b>10,376</b>                      | -         | <b>10,376</b> |
|                                | - of which                            |                                      |           |              |                                   |           |               |                                    |           |               |
| 7                              | loans to corporates                   | -                                    | -         | -            | 2,397                             | -         | 2,397         | 8,960                              | -         | 8,960         |
| 8                              | commercial mortgage                   | -                                    | -         | -            | -                                 | -         | -             | 561                                | -         | 561           |
| 9                              | lease and receivables                 | -                                    | -         | -            | -                                 | -         | -             | -                                  | -         | -             |
| 10                             | other wholesale                       | -                                    | -         | -            | 11,213                            | -         | 11,213        | 855                                | -         | 855           |
| 10a                            | of which dealer floor plan receivable | -                                    | -         | -            | 2,046                             | -         | 2,046         | -                                  | -         | -             |
| 10b                            | of which equipment receivable         | -                                    | -         | -            | 3,971                             | -         | 3,971         | -                                  | -         | -             |
| 10c                            | of which trade receivable             | -                                    | -         | -            | -                                 | -         | -             | -                                  | -         | -             |
| 10d                            | of which other wholesale              | -                                    | -         | -            | 5,196                             | -         | 5,196         | 855                                | -         | 855           |
| 11                             | re-securitization                     | -                                    | -         | -            | -                                 | -         | -             | -                                  | -         | -             |

<sup>1</sup> Bank acts as originator reflects securitization activities in which we securitize our own assets (e.g. Golden credit card securitization).

<sup>2</sup> Bank acts as sponsor reflects securitization activities in which RBC works with its client to originate securitization transactions. RBC provides the liquidity and credit enhancement facilities to the SPE.

<sup>3</sup> Bank acts as investor reflects purchases of securitization assets from the market.

**SEC2: IRB – Securitization exposures in the trading book**

The following table presents the breakdown of our balance sheet trading book carrying values by our role and type.

As at January 31, 2021

|          | (Millions of Canadian dollars)         | a                                    | b         | c         | e                                 | f         | g         | i                                  | j         | k            |
|----------|--|--------------------------------------|-----------|-----------|-----------------------------------|-----------|-----------|------------------------------------|-----------|--------------|
|          |  | Bank acts as originator <sup>1</sup> |           |           | Bank acts as sponsor <sup>2</sup> |           |           | Bank acts as investor <sup>3</sup> |           |              |
|          |  | Traditional                          | Synthetic | Sub-total | Traditional                       | Synthetic | Sub-total | Traditional                        | Synthetic | Sub-total    |
| <b>1</b> | <b>Retail (total)</b>                  | -                                    | -         | -         | -                                 | -         | -         | <b>135</b>                         | -         | <b>135</b>   |
|          | - of which                             |                                      |           |           |                                   |           |           |                                    |           |              |
| 2        | residential mortgages                  | -                                    | -         | -         | -                                 | -         | -         | 7                                  | -         | 7            |
| 3        | credit cards                           | -                                    | -         | -         | -                                 | -         | -         | -                                  | -         | -            |
| 4        | other retail exposures                 | -                                    | -         | -         | -                                 | -         | -         | 128                                | -         | 128          |
| 4a       | of which student loans                 | -                                    | -         | -         | -                                 | -         | -         | 59                                 | -         | 59           |
| 4b       | of which auto loans and leases         | -                                    | -         | -         | -                                 | -         | -         | 64                                 | -         | 64           |
| 4c       | of which consumer loans                | -                                    | -         | -         | -                                 | -         | -         | 5                                  | -         | 5            |
| 4d       | of which other retail                  | -                                    | -         | -         | -                                 | -         | -         | -                                  | -         | -            |
| 5        | re-securitization                      | -                                    | -         | -         | -                                 | -         | -         | -                                  | -         | -            |
| <b>6</b> | <b>Wholesale (total)</b>               | -                                    | -         | -         | -                                 | -         | -         | <b>5,262</b>                       | -         | <b>5,262</b> |
|          | - of which                             |                                      |           |           |                                   |           |           |                                    |           |              |
| 7        | loans to corporates                    | -                                    | -         | -         | -                                 | -         | -         | 184                                | -         | 184          |
| 8        | commercial mortgages                   | -                                    | -         | -         | -                                 | -         | -         | 4,485                              | -         | 4,485        |
| 9        | leases and receivables                 | -                                    | -         | -         | -                                 | -         | -         | -                                  | -         | -            |
| 10       | other wholesale exposures              | -                                    | -         | -         | -                                 | -         | -         | 593                                | -         | 593          |
| 10a      | of which dealer floor plan receivables | -                                    | -         | -         | -                                 | -         | -         | -                                  | -         | -            |
| 10b      | of which equipment receivables         | -                                    | -         | -         | -                                 | -         | -         | -                                  | -         | -            |
| 10c      | of which trade receivables             | -                                    | -         | -         | -                                 | -         | -         | -                                  | -         | -            |
| 10d      | of which other wholesale               | -                                    | -         | -         | -                                 | -         | -         | 593                                | -         | 593          |
| 11       | re-securitization                      | -                                    | -         | -         | -                                 | -         | -         | -                                  | -         | -            |

<sup>1</sup> Bank acts as originator reflects securitization activities in which we securitize our own assets.

<sup>2</sup> Bank acts as sponsor reflects securitization activities in which RBC works with its client to originate securitization transactions. RBC provides the liquidity and credit enhancement facilities to the SPE.

<sup>3</sup> Bank acts as investor reflects purchases of securitization assets from the market.

**SEC2: IRB – Securitization exposures in the trading book (continued)**

As at October 31, 2020

|          | (Millions of Canadian dollars)         | a                                    | b         | c         | e                                 | f         | g         | i                                  | j         | k            |
|----------|--|--------------------------------------|-----------|-----------|-----------------------------------|-----------|-----------|------------------------------------|-----------|--------------|
|          |  | Bank acts as originator <sup>1</sup> |           |           | Bank acts as sponsor <sup>2</sup> |           |           | Bank acts as investor <sup>3</sup> |           |              |
|          |  | Traditional                          | Synthetic | Sub-total | Traditional                       | Synthetic | Sub-total | Traditional                        | Synthetic | Sub-total    |
| <b>1</b> | <b>Retail (total)</b>                  | -                                    | -         | -         | -                                 | -         | -         | <b>141</b>                         | -         | <b>141</b>   |
|          | - of which                             |                                      |           |           |                                   |           |           |                                    |           |              |
| 2        | residential mortgages                  | -                                    | -         | -         | -                                 | -         | -         | 18                                 | -         | 18           |
| 3        | credit cards                           | -                                    | -         | -         | -                                 | -         | -         | (7)                                | -         | (7)          |
| 4        | other retail exposures                 | -                                    | -         | -         | -                                 | -         | -         | 130                                | -         | 130          |
| 4a       | of which student loans                 | -                                    | -         | -         | -                                 | -         | -         | 55                                 | -         | 55           |
| 4b       | of which auto loans and leases         | -                                    | -         | -         | -                                 | -         | -         | 59                                 | -         | 59           |
| 4c       | of which consumer loans                | -                                    | -         | -         | -                                 | -         | -         | 16                                 | -         | 16           |
| 4d       | of which other retail                  | -                                    | -         | -         | -                                 | -         | -         | -                                  | -         | -            |
| 5        | re-securitization                      | -                                    | -         | -         | -                                 | -         | -         | -                                  | -         | -            |
| <b>6</b> | <b>Wholesale (total)</b>               | -                                    | -         | -         | -                                 | -         | -         | <b>5,621</b>                       | -         | <b>5,621</b> |
|          | - of which                             |                                      |           |           |                                   |           |           |                                    |           |              |
| 7        | loans to corporates                    | -                                    | -         | -         | -                                 | -         | -         | 184                                | -         | 184          |
| 8        | commercial mortgages                   | -                                    | -         | -         | -                                 | -         | -         | 4,792                              | -         | 4,792        |
| 9        | leases and receivables                 | -                                    | -         | -         | -                                 | -         | -         | -                                  | -         | -            |
| 10       | other wholesale exposures              | -                                    | -         | -         | -                                 | -         | -         | 645                                | -         | 645          |
| 10a      | of which dealer floor plan receivables | -                                    | -         | -         | -                                 | -         | -         | -                                  | -         | -            |
| 10b      | of which equipment receivables         | -                                    | -         | -         | -                                 | -         | -         | 37                                 | -         | 37           |
| 10c      | of which trade receivables             | -                                    | -         | -         | -                                 | -         | -         | -                                  | -         | -            |
| 10d      | of which other wholesale               | -                                    | -         | -         | -                                 | -         | -         | 608                                | -         | 608          |
| 11       | re-securitization                      | -                                    | -         | -         | -                                 | -         | -         | -                                  | -         | -            |

<sup>1</sup> Bank acts as originator reflects securitization activities in which we securitize our own assets.

<sup>2</sup> Bank acts as sponsor reflects securitization activities in which RBC works with its client to originate securitization transactions. RBC provides the liquidity and credit enhancement facilities to the SPE.

<sup>3</sup> Bank acts as investor reflects purchases of securitization assets from the market.

**SEC3: Securitization exposures in the banking book and associated regulatory capital requirements – bank acting as originator or as sponsor**

The following table presents a breakdown of securitization exposures in the banking book by risk weight and by regulatory approach when we act as originator or sponsor, and the associated capital requirements.

As at January 31, 2021

|                                | a                                | b                 | c                  | d                     | e        | f   | g                         | h                     | i     | j  | k                         | l                     | m     | n  | o                         | p                     | q     |
|--------------------------------|----------------------------------|-------------------|--------------------|-----------------------|----------|---|---------------------------|-----------------------|-------|--|---------------------------|-----------------------|-------|--|---------------------------|-----------------------|-------|
|                                | Exposure values<br>(by RW bands) |                   |                    |                       |          | Exposure values<br>(by regulatory approach) |                           |                       |       | RWA <sup>3</sup><br>(by regulatory approach) |                           |                       |       | Capital charge after cap<br>(by regulatory approach) |                           |                       |       |
|                                | ≤20% RW                          | >20% to<br>50% RW | >50% to<br>100% RW | >100% to<br><1250% RW | 1250% RW | SEC – IRBA <sup>1,4</sup>                   | SEC – ERBA <sup>1,2</sup> | SEC – SA <sup>1</sup> | 1250% | SEC – IRBA <sup>1,4</sup>                    | SEC – ERBA <sup>1,2</sup> | SEC – SA <sup>1</sup> | 1250% | SEC – IRBA <sup>1,4</sup>                            | SEC – ERBA <sup>1,2</sup> | SEC – SA <sup>1</sup> | 1250% |
| (Millions of Canadian dollars) |                                  |                   |                    |                       |          |   |                           |                       |       |  |                           |                       |       |  |                           |                       |       |
| <b>1 Total exposures</b>       | <b>46,380</b>                    | <b>4,757</b>      | <b>1,733</b>       | <b>318</b>            | -        | -   | <b>44,932</b>             | <b>8,256</b>          | -     | -  | <b>6,453</b>              | <b>2,256</b>          | -     | -  | <b>517</b>                | <b>181</b>            | -     |
| 2 Traditional securitization   | 46,380                           | 4,757             | 1,733              | 318                   | -        | -   | 44,932                    | 8,256                 | -     | -  | 6,453                     | 2,256                 | -     | -  | 517                       | 181                   | -     |
| 3 Of which securitization      | 46,380                           | 4,757             | 1,733              | 318                   | -        | -   | 44,932                    | 8,256                 | -     | -  | 6,453                     | 2,256                 | -     | -  | 517                       | 181                   | -     |
| 4 Of which retail underlying   | 36,579                           | 2,192             | 272                | 257                   | -        | -   | 34,992                    | 4,308                 | -     | -  | 4,632                     | 669                   | -     | -  | 371                       | 54                    | -     |
| 5 Of which wholesale           | 9,801                            | 2,565             | 1,461              | 61                    | -        | -   | 9,940                     | 3,948                 | -     | -  | 1,821                     | 1,587                 | -     | -  | 146                       | 127                   | -     |
| 6 Of which re-securitization   | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 7 Of which senior              | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 8 Of which non-senior          | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 9 Synthetic securitization     | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 10 Of which securitization     | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 11 Of which retail underlying  | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 12 Of which wholesale          | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 13 Of which re-securitization  | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 14 Of which senior             | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 15 Of which non-senior         | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |

<sup>1</sup> OSFI adopted BCBS Revised Securitization Framework in Q1 2019. Effective Q1 2020, transitional grandfathering is no longer allowed.

<sup>2</sup> As per disclosure requirements Internal assessment approach (IAA) exposures have been included with securitization external rating based approach.

<sup>3</sup> Under the revised securitization framework, OSFI has removed the 1.06% IRB scalar for securitization exposures not risk weighted at 1250%.

<sup>4</sup> SEC-IRBA exposures reflect exposures where we have underlying IRB approval currently.

Effective Q1 2021, under the Securitization Framework, OSFI requires that any securitizations involving a bank's own underlying assets must meet a 60% significant risk transfer test in order to recognize securitization risk transference to a third party. This requirement was not applicable in prior quarters under transitional arrangements allowed by OSFI. In Q1 2021, our Golden Credit Card Trust (GCCT) credit cards securitization, due to retained holdings, did not meet this criteria and are no longer eligible to be recognized as a securitization for regulatory capital purposes. As such, these exposures previously risk-weighted under SEC-IRBA are no longer reflected in the above table but instead are risk-weighted based on the underlying credit cards using the Credit Risk framework, with these exposures now being classified as qualifying revolving retail.



As at October 31, 2020

|                                | a                                | b                 | c                  | d                     | e         | f   | g                         | h                     | i         | j  | k                         | l                     | m          | n  | o                         | p                     | q         |
|--------------------------------|----------------------------------|-------------------|--------------------|-----------------------|-----------|---|---------------------------|-----------------------|-----------|--|---------------------------|-----------------------|------------|--|---------------------------|-----------------------|-----------|
|                                | Exposure values<br>(by RW bands) |                   |                    |                       |           | Exposure values<br>(by regulatory approach) |                           |                       |           | RWA <sup>3</sup><br>(by regulatory approach) |                           |                       |            | Capital charge after cap<br>(by regulatory approach) |                           |                       |           |
|                                | ≤20% RW                          | >20% to<br>50% RW | >50% to<br>100% RW | >100% to<br><1250% RW | 1250% RW  | SEC – IRBA <sup>1,4</sup>                   | SEC – ERBA <sup>1,2</sup> | SEC – SA <sup>1</sup> | 1250%     | SEC – IRBA <sup>1,4</sup>                    | SEC – ERBA <sup>1,2</sup> | SEC – SA <sup>1</sup> | 1250%      | SEC – IRBA <sup>1,4</sup>                            | SEC – ERBA <sup>1,2</sup> | SEC – SA <sup>1</sup> | 1250%     |
| (Millions of Canadian dollars) |                                  |                   |                    |                       |           |   |                           |                       |           |  |                           |                       |            |  |                           |                       |           |
| <b>1 Total exposures</b>       | <b>47,719</b>                    | <b>4,472</b>      | <b>1,183</b>       | <b>407</b>            | <b>19</b> | <b>1,170</b>                                | <b>45,067</b>             | <b>7,544</b>          | <b>19</b> | <b>329</b>                                   | <b>6,233</b>              | <b>1,978</b>          | <b>243</b> | <b>26</b>  | <b>498</b>                | <b>158</b>            | <b>19</b> |
| 2 Traditional securitization   | 47,719                           | 4,472             | 1,183              | 407                   | 19        | 1,170                                       | 45,067                    | 7,544                 | 19        | 329  | 6,233                     | 1,978                 | 243        | 26   | 498                       | 158                   | 19        |
| 3 Of which securitization      | 47,719                           | 4,472             | 1,183              | 407                   | 19        | 1,170                                       | 45,067                    | 7,544                 | 19        | 329  | 6,233                     | 1,978                 | 243        | 26   | 498                       | 158                   | 19        |
| 4 Of which retail underlying   | 36,974                           | 2,541             | 313                | 343                   | 19        | 1,170                                       | 35,019                    | 3,982                 | 19        | 329  | 4,628                     | 641                   | 243        | 26   | 370                       | 51                    | 19        |
| 5 Of which wholesale           | 10,745                           | 1,931             | 870                | 64                    | -         | -   | 10,048                    | 3,562                 | -         | -  | 1,605                     | 1,337                 | -          | -  | 128                       | 107                   | -         |
| 6 Of which re-securitization   | -                                | -                 | -                  | -                     | -         | -   | -                         | -                     | -         | -  | -                         | -                     | -          | -  | -                         | -                     | -         |
| 7 Of which senior              | -                                | -                 | -                  | -                     | -         | -   | -                         | -                     | -         | -  | -                         | -                     | -          | -  | -                         | -                     | -         |
| 8 Of which non-senior          | -                                | -                 | -                  | -                     | -         | -   | -                         | -                     | -         | -  | -                         | -                     | -          | -  | -                         | -                     | -         |
| 9 Synthetic securitization     | -                                | -                 | -                  | -                     | -         | -   | -                         | -                     | -         | -  | -                         | -                     | -          | -  | -                         | -                     | -         |
| 10 Of which securitization     | -                                | -                 | -                  | -                     | -         | -   | -                         | -                     | -         | -  | -                         | -                     | -          | -  | -                         | -                     | -         |
| 11 Of which retail underlying  | -                                | -                 | -                  | -                     | -         | -   | -                         | -                     | -         | -  | -                         | -                     | -          | -  | -                         | -                     | -         |
| 12 Of which wholesale          | -                                | -                 | -                  | -                     | -         | -   | -                         | -                     | -         | -  | -                         | -                     | -          | -  | -                         | -                     | -         |
| 13 Of which re-securitization  | -                                | -                 | -                  | -                     | -         | -   | -                         | -                     | -         | -  | -                         | -                     | -          | -  | -                         | -                     | -         |
| 14 Of which senior             | -                                | -                 | -                  | -                     | -         | -   | -                         | -                     | -         | -  | -                         | -                     | -          | -  | -                         | -                     | -         |
| 15 Of which non-senior         | -                                | -                 | -                  | -                     | -         | -   | -                         | -                     | -         | -  | -                         | -                     | -          | -  | -                         | -                     | -         |

<sup>1</sup> OSFI adopted BCBS Revised Securitization Framework in Q1 2019. Effective Q1 2020, transitional grandfathering is no longer allowed.

<sup>2</sup> As per disclosure requirements Internal assessment approach (IAA) exposures have been included with securitization external rating based approach.

<sup>3</sup> Under the revised securitization framework, OSFI has removed the 1.06% IRB scalar for securitization exposures not risk weighted at 1250%.

<sup>4</sup> SEC-IRBA exposures reflect exposures where we have underlying IRB approval currently.



**SEC4: Securitization exposures in the banking book and associated capital requirements – bank acting as investor**

The following table presents a breakdown of securitization exposures in the banking book by risk weight and by regulatory approach when we act as investor, and the associated capital requirements.

As at January 31, 2021

|                                | a                                | b                 | c                  | d                     | e        | f   | g                         | h                     | i     | j  | k                         | l                     | m     | n  | o                         | p                     | q     |
|--------------------------------|----------------------------------|-------------------|--------------------|-----------------------|----------|---|---------------------------|-----------------------|-------|--|---------------------------|-----------------------|-------|--|---------------------------|-----------------------|-------|
|                                | Exposure values<br>(by RW bands) |                   |                    |                       |          | Exposure values<br>(by regulatory approach) |                           |                       |       | RWA <sup>3</sup><br>(by regulatory approach) |                           |                       |       | Capital charge after cap<br>(by regulatory approach) |                           |                       |       |
|                                | ≤20%<br>RW                       | >20% to<br>50% RW | >50% to<br>100% RW | >100% to<br><1250% RW | 1250% RW | SEC – IRBA <sup>1,4</sup>                   | SEC – ERBA <sup>1,2</sup> | SEC – SA <sup>1</sup> | 1250% | SEC – IRBA <sup>1,4</sup>                    | SEC – ERBA <sup>1,2</sup> | SEC – SA <sup>1</sup> | 1250% | SEC – IRBA <sup>1,4</sup>                            | SEC – ERBA <sup>1,2</sup> | SEC – SA <sup>1</sup> | 1250% |
| (Millions of Canadian dollars) |                                  |                   |                    |                       |          |   |                           |                       |       |  |                           |                       |       |  |                           |                       |       |
| <b>1 Total exposures</b>       | <b>9,085</b>                     | <b>360</b>        | <b>76</b>          | <b>97</b>             | -        | -   | <b>9,618</b>              | -                     | -     | -  | <b>2,071</b>              | -                     | -     | -  | <b>166</b>                | -                     | -     |
| 2 Traditional securitization   | 9,085                            | 360               | 76                 | 97                    | -        | -   | 9,618                     | -                     | -     | -  | 2,071                     | -                     | -     | -  | 166                       | -                     | -     |
| 3 Of which securitization      | 9,085                            | 360               | 76                 | 97                    | -        | -   | 9,618                     | -                     | -     | -  | 2,071                     | -                     | -     | -  | 166                       | -                     | -     |
| 4 Of which retail underlying   | 100                              | 97                | -                  | 2                     | -        | -   | 198                       | -                     | -     | -  | 43                        | -                     | -     | -  | 3                         | -                     | -     |
| 5 Of which wholesale           | 8,985                            | 263               | 76                 | 95                    | -        | -   | 9,420                     | -                     | -     | -  | 2,028                     | -                     | -     | -  | 163                       | -                     | -     |
| 6 Of which re-securitization   | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 7 Of which senior              | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 8 Of which non-senior          | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 9 Synthetic securitization     | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 10 Of which securitization     | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 11 Of which retail underlying  | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 12 Of which wholesale          | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 13 Of which re-securitization  | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 14 Of which senior             | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 15 Of which non-senior         | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |

<sup>1</sup> OSFI adopted BCBS Revised Securitization Framework in Q1 2019. Effective Q1 2020, transitional grandfathering is no longer allowed.

<sup>2</sup> As per disclosure requirements Internal assessment approach (IAA) exposures have been included with securitization external rating based approach.

<sup>3</sup> Under the revised securitization framework, OSFI has removed the 1.06% IRB scalar for securitization exposures not risk weighted at 1,250%.

<sup>4</sup> SEC-IRBA exposures reflect exposures where we have underlying IRB approval currently.



As at October 31, 2020

|                                | a                                | b                 | c                  | d                     | e        | f   | g                         | h                     | i     | j  | k                         | l                     | m     | n  | o                         | p                     | q     |
|--------------------------------|----------------------------------|-------------------|--------------------|-----------------------|----------|---|---------------------------|-----------------------|-------|--|---------------------------|-----------------------|-------|--|---------------------------|-----------------------|-------|
|                                | Exposure values<br>(by RW bands) |                   |                    |                       |          | Exposure values<br>(by regulatory approach) |                           |                       |       | RWA <sup>3</sup><br>(by regulatory approach) |                           |                       |       | Capital charge after cap<br>(by regulatory approach) |                           |                       |       |
|                                | ≤20%<br>RW                       | >20% to<br>50% RW | >50% to<br>100% RW | >100% to<br><1250% RW | 1250% RW | SEC – IRBA <sup>1,4</sup>                   | SEC – ERBA <sup>1,2</sup> | SEC – SA <sup>1</sup> | 1250% | SEC – IRBA <sup>1,4</sup>                    | SEC – ERBA <sup>1,2</sup> | SEC – SA <sup>1</sup> | 1250% | SEC – IRBA <sup>1,4</sup>                            | SEC – ERBA <sup>1,2</sup> | SEC – SA <sup>1</sup> | 1250% |
| (Millions of Canadian dollars) |                                  |                   |                    |                       |          |   |                           |                       |       |  |                           |                       |       |  |                           |                       |       |
| <b>1 Total exposures</b>       | <b>9,522</b>                     | <b>428</b>        | <b>103</b>         | <b>568</b>            | -        | -   | <b>10,621</b>             | -                     | -     | -  | <b>2,706</b>              | -                     | -     | -  | <b>217</b>                | -                     | -     |
| 2 Traditional securitization   | 9,522                            | 428               | 103                | 568                   | -        | -   | 10,621                    | -                     | -     | -  | 2,706                     | -                     | -     | -  | 217                       | -                     | -     |
| 3 Of which securitization      | 9,522                            | 428               | 103                | 568                   | -        | -   | 10,621                    | -                     | -     | -  | 2,706                     | -                     | -     | -  | 217                       | -                     | -     |
| 4 Of which retail underlying   | 108                              | 135               | -                  | 2                     | -        | -   | 245                       | -                     | -     | -  | 57                        | -                     | -     | -  | 5                         | -                     | -     |
| 5 Of which wholesale           | 9,414                            | 293               | 103                | 566                   | -        | -   | 10,376                    | -                     | -     | -  | 2,649                     | -                     | -     | -  | 212                       | -                     | -     |
| 6 Of which re-securitization   | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 7 Of which senior              | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 8 Of which non-senior          | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 9 Synthetic securitization     | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 10 Of which securitization     | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 11 Of which retail underlying  | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 12 Of which wholesale          | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 13 Of which re-securitization  | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 14 Of which senior             | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |
| 15 Of which non-senior         | -                                | -                 | -                  | -                     | -        | -   | -                         | -                     | -     | -  | -                         | -                     | -     | -  | -                         | -                     | -     |

<sup>1</sup> OSFI adopted BCBS Revised Securitization Framework in Q1 2019. Effective Q1 2020, transitional grandfathering is no longer allowed.

<sup>2</sup> As per disclosure requirements Internal assessment approach (IAA) exposures have been included with securitization external rating based approach.

<sup>3</sup> Under the revised securitization framework, OSFI has removed the 1.06% IRB scalar for securitization exposures not risk weighted at 1,250%.

<sup>4</sup> SEC-IRBA exposures reflect exposures where we have underlying IRB approval currently.

**MARKET RISK**

**MRA: Qualitative disclosure requirements related to market risk**

**Market risk management strategies and processes**

Market risk arises from our trading and non-trading portfolios. The primary objective of trading is to generate an optimal return on our capital while ensuring that risks remain within our risk appetite. Trading activities involve market making, facilitating client transactions and hedging risks generated from these activities.

Market risk also arises from our non-trading portfolio as a result of: managing interest rate risk from client-originating banking products (such as loans and deposits) and related hedge transactions, portfolios used for asset-liability management and liquidity management, exposures designated as FVOCI, and exposures from our insurance operations.

To ensure that market risk remains within our risk appetite, we hedge our market risk exposures where appropriate. We use cash and derivative financial instruments, as permitted by regulatory and jurisdictional requirements, to manage the market risk related to our trading and non-trading activities.

The table below presents an overview of Pillar 3 disclosure requirements that have been met within our 2020 Annual Report and incorporated by reference into this Pillar 3 report. Our 2020 Annual Report is available free of charge on our website at <http://www.rbc.com/investorrelations>

| Pillar 3 disclosures requirement   | RBC 2020 Annual Report section    | Sub-Section  |
|--|-----------------------------------|--|
| a) Processes implemented to identify, measure, monitor and control the bank's market risks               | Market Risk                       | Market risk controls – FVTPL positions   |
|  |                                   | Stress Tests   |
|  |                                   | Market risk measures – FVTPL positions   |
|  |                                   | Market risk measures for assets and liabilities of RBC Insurance                                 |
|  |                                   | Market risk controls – Interest Rate Risk in the Banking Book (IRRBB) positions                  |
|  |                                   | IRRBB measurement  |
|  |                                   | Market risk measures – IRRBB Sensitivities   |
|  |                                   | Market risk measures for other material non-trading portfolios                                   |
| Policies for hedging risk and strategies/processes for monitoring the continuing effectiveness of hedges | Consolidated Financial Statements | Note 2 - Summary of significant accounting policies, estimates and judgements – Hedge accounting |

**MRA: Qualitative disclosure requirements related to market risk (continued)**

**Market risk management structure and organization**

The Enterprise Market Risk Management Framework is the governance and control framework for the management of market risk within the bank. The market risk management structure is designed to ensure strong corporate governance over all market risk in the context of each business considering operating environment, industry best practices, and regulatory requirements. Drivers of market risk are considered in the bank’s policies, practices and standards which are continuously updated given dynamic market, and regulatory conditions.

The table below presents an overview of Pillar 3 disclosure requirements that have been met within our 2020 Annual Report and incorporated by reference into this Pillar 3 report. Our 2020 Annual Report is available free of charge on our website at <http://www.rbc.com/investorrelations>

| Pillar 3 disclosures requirement   | RBC 2020 Annual Report section | Sub-Section                       |
|--|--------------------------------|-----------------------------------|
| b) Description of the market risk governance structure established to implement the strategies and processes of the bank           | Enterprise Risk Management     | Risk governance                   |
|  |                                | Risk appetite                     |
|  |                                | Risk measurement                  |
|  |                                | Risk control                      |
|  |                                | Risk measurement - Stress testing |
|  |                                | Culture and conduct risk          |
| Description of the relationships and the communication mechanisms between the different parties involved in market risk management | Enterprise Risk Management     | Risk governance                   |
|  |                                | Risk control                      |

**Scope and nature of risk reporting and/or measurement systems**

The table below presents an overview of Pillar 3 disclosure requirements that have been met within our 2020 Annual Report and incorporated by reference into this Pillar 3 report. Our 2020 Annual Report is available free of charge on our website at <http://www.rbc.com/investorrelations>

| Pillar 3 disclosures requirement                                 | RBC 2020 Annual Report section | Sub-Section   |
|--|--------------------------------|---|
| c) Scope and nature of risk reporting and/or measurement systems | Enterprise Risk Management     | Risk measurement  |
|  |                                | Risk control  |
|  |                                | Risk measurement – Stress testing   |
|  | Market Risk                    | Market risk controls – FVTPL positions  |
|  |                                | Stress Tests  |
|  |                                | Market risk measures – FVTPL positions  |
|  |                                | Market risk measures for assets and liabilities of RBC Insurance                |
|  |                                | Market risk controls – Interest Rate Risk in the Banking Book (IRRBB) positions |
|  |                                | IRRBB measurement   |
|  |                                | Market risk measures – IRRBB Sensitivities                                      |
|  |                                | Market risk measures for other material non-trading portfolios                  |

**MRB: Qualitative disclosures for banks using the Internal Models Approach (IMA)**
**Internal models used for measuring Market Risk**

| Measure                               | Description  | Percentage of market risk regulatory capital <sup>1</sup> |
|---------------------------------------|--|---|
| <b>Regulatory Value at Risk (VaR)</b> | VaR is a statistical measure of potential loss for a financial portfolio computed at a given level of confidence and over a defined holding period. We measure VaR at the 99 <sup>th</sup> percentile confidence level and for regulatory capital measurement we take the more conservative of the one-day holding period scaled up to a ten-day holding period or the direct ten-day holding period. The measure is computed daily, using a full-revaluation approach to generate potential profit or loss values arising from historically observed daily market movements. The historical period used to compute VaR is comprised of the recent two years of equally weighted market data, and is rolled forward on a bi-weekly basis. A mix of absolute and relative returns are used in generating the historical market changes. | 23%   |
| <b>Stressed VaR (SVaR)</b>            | SVaR is calculated daily in a similar manner as VaR, but based on a ten-day holding period directly and using a one year period of heightened volatility. We currently use the historical period between 2019 and 2020 covering the market volatility observed during Q2 2020. This historical period chosen reflects the one year period of greatest potential loss for our portfolio.  | 8%  |
| <b>Incremental Risk Charge (IRC)</b>  | IRC captures the risk of losses under default or rating changes for issuers of traded instruments. IRC is measured over a one-year horizon at a 99.9% confidence level, and captures different liquidity horizons for instruments and concentrations in issuers under a constant level of risk assumption.   | 25%   |

<sup>1</sup> As at January 31, 2021.

**VaR and SVaR**

The VaR and SVaR models are used for computing regulatory capital for trading book positions across the enterprise, where we have obtained approval from our regulator. We model a general market risk measure, a debt specific risk measure, and an equity total risk measure; along with a total correlated risk measure which combines the above distributions. For portions of our portfolio for which we do not have regulatory approval for models based capital, we use the Standardized Approach to compute regulatory capital.

For management purposes, VaR and SVaR are both computed with one-day holding periods and are applied to all positions that impact the bank's revenue across the trading book and non-trading book. A sensitivity-ladder interpolation approach is applied for some positions instead of full-revaluation, and inactive non-trading book positions are refreshed monthly.

**MRB: Qualitative disclosures for banks using the Internal Models Approach (continued)**

The table below presents an overview of Pillar 3 disclosure requirements that have been met within our 2020 Annual Report and incorporated by reference into this Pillar 3 report. Our 2020 Annual Report is available free of charge on our website at <http://www.rbc.com/investorrelations>

| Pillar 3 disclosures requirement |   | RBC 2020 Annual Report section | Sub-Section                            |
|----------------------------------|---|--------------------------------|--|
| c)                               | General description of the models (VaR/stressed VaR)              | Market Risk                    | Market Risk Controls – FVTPL positions |
| g)                               | Description of stress testing applied to the modelling parameters | Market Risk                    | Stress Tests                           |

The VaR and SVaR models are governed by a model risk governance framework, which requires that models are validated on a regular basis by a model validation group that is independent of the model developers. The VaR and SVaR models are also subject to ongoing model performance monitoring. The VaR model is back tested by comparing marked-to-market revenue to the computed VaR on a daily basis, in order to ensure that actual outcomes in trading revenue do not exceed the VaR projections beyond the expectations of the applied confidence interval. Backtesting is also performed using a hypothetical profit and loss calculation which allows for comparisons to the total correlated VaR, the general market risk VaR, and asset class VaR measures separately.

While the majority of market risks are reflected in our VaR models, there is the potential for certain risks to be inadequately captured. This can occur due to infrastructure limitations, lack of historical market data or missing risk factors within our VaR models. These Risks Not in VaR (RNIV) are identified through backtesting and other model monitoring processes, and are incorporated into the VaR models, where possible. An assessment of residual RNIV materiality is reviewed and monitored against thresholds regularly.

**Incremental Risk Charge**

Our IRC model is applied to debt instruments, credit products, and credit derivatives within our trading portfolios. A probability modelling technique known as the Monte Carlo simulation process is used to generate a statistically relevant number of loss scenarios due to issuer ratings migration and default in order to establish the losses at that confidence level. These scenarios are determined using a transition probability matrix which is calibrated using recent 20 years of historical issuer ratings migration and default observations. Correlations between issuer regions and sectors are calibrated using five years of historical equity time series data. For the Monte Carlo process, each position is assigned a liquidity horizon (the length of time to close out a position) of three months, six months, or one year, depending on its issuer type, credit rating, and maturity profile.

The IRC model is also subject to the same independent vetting, validation procedures and model risk governance framework as the VaR and SVaR models. Model performance monitoring includes reviews and stress testing of model assumptions, which includes stress testing the historical correlation and liquidity assumptions. Due to the long time horizon and high confidence level of the risk measure, we do not perform back-testing of the IRC model as we do for the VaR measure.

**MR1: Market risk under standardized approach**

The following table presents the components of the capital requirement under the standardized approach for market risk.

|                          | (Millions of Canadian dollars)            | RWA                    |                        |
|--------------------------|---|------------------------|------------------------|
|                          |   | As at January 31, 2021 | As at October 31, 2020 |
| <b>Outright products</b> |   |                        |                        |
| 1                        | Interest rate risk (general and specific) | 3,473                  | 3,705                  |
| 2                        | Equity risk (general and specific)        | 305                    | 217                    |
| 3                        | Foreign exchange risk                     | 2,068                  | 2,158                  |
| 4                        | Commodity risk                            | 228                    | 230                    |
| <b>Options</b>           |   |                        |                        |
| 5                        | Simplified approach                       | -                      | -                      |
| 6                        | Delta-plus method                         | -                      | -                      |
| 7                        | Scenario approach                         | 5,375                  | 4,794                  |
| 8                        | <b>Securitization</b>                     | 1,083                  | 985                    |
| 9                        | <b>Total</b>                              | <b>12,532</b>          | <b>12,089</b>          |

**MR2: RWA flow statements of market risk exposures under the Internal Models Approach (IMA)**

The following table presents variations in the Market RWA determined under the Internal Models Approach.

As at January 31, 2021

|   | (Millions of Canadian dollars)          | a            | b            | c            | d   | e     | f             |
|---|---|--------------|--------------|--------------|-----|-------|---------------|
|   |   | VaR          | Stressed VaR | IRC          | CRM | Other | Total RWA     |
| 1 | <b>RWA at previous quarter end</b>      | <b>6,175</b> | <b>2,394</b> | <b>6,716</b> | -   | -     | <b>15,285</b> |
| 2 | Movement in risk levels <sup>1</sup>    | 498          | (8)          | 803          | -   | -     | 1,293         |
| 3 | Model updates/changes <sup>2</sup>      | (177)        | (50)         | (200)        | -   | -     | (427)         |
| 4 | Methodology and policy <sup>3</sup>     | -            | -            | -            | -   | -     | -             |
| 5 | Acquisitions and disposals              | -            | -            | -            | -   | -     | -             |
| 6 | Foreign exchange movements <sup>4</sup> | -            | -            | (234)        | -   | -     | (234)         |
| 7 | Other                                   | -            | -            | -            | -   | -     | -             |
| 8 | <b>RWA at end of Reporting Period</b>   | <b>6,496</b> | <b>2,336</b> | <b>7,085</b> | -   | -     | <b>15,917</b> |

<sup>1</sup> Change in risk due to position changes and averaging in of prior quarter model updates.

<sup>2</sup> Updates to the model to reflect recent market volatility, model implementation, change in model scope or any change to address model malfunctions including changes through model calibrations/realignments.

<sup>3</sup> Methodology changes to the calculations driven by regulatory policy changes. Please note that these changes may be temporary.

<sup>4</sup> Foreign exchange movements for VaR and Stressed VaR are embedded within movement in risk levels.

As at October 31, 2020

|   | (Millions of Canadian dollars)          | a            | b            | c            | d   | e     | f             |
|---|---|--------------|--------------|--------------|-----|-------|---------------|
|   |   | VaR          | Stressed VaR | IRC          | CRM | Other | Total RWA     |
| 1 | <b>RWA at previous quarter end</b>      | <b>9,755</b> | <b>3,593</b> | <b>7,080</b> | -   | -     | <b>20,428</b> |
| 2 | Movement in risk levels <sup>1</sup>    | (3,661)      | (1,233)      | (326)        | -   | -     | (5,220)       |
| 3 | Model updates/changes <sup>2</sup>      | 81           | 34           | -            | -   | -     | 115           |
| 4 | Methodology and policy <sup>3</sup>     | -            | -            | -            | -   | -     | -             |
| 5 | Acquisitions and disposals              | -            | -            | -            | -   | -     | -             |
| 6 | Foreign exchange movements <sup>4</sup> | -            | -            | (38)         | -   | -     | (38)          |
| 7 | Other                                   | -            | -            | -            | -   | -     | -             |
| 8 | <b>RWA at end of Reporting Period</b>   | <b>6,175</b> | <b>2,394</b> | <b>6,716</b> | -   | -     | <b>15,285</b> |

<sup>1</sup> Change in risk due to position changes and averaging in of prior quarter model updates.

<sup>2</sup> Updates to the model to reflect recent market volatility, model implementation, change in model scope or any change to address model malfunctions including changes through model calibrations/realignments.

<sup>3</sup> Methodology changes to the calculations driven by regulatory policy changes. Please note that these changes may be temporary.

<sup>4</sup> Foreign exchange movements for VaR and Stressed VaR are embedded within movement in risk levels.

**MR3: IMA values for trading portfolios**

The following table presents minimum, maximum, average and period-end regulatory 10 day VaR, regulatory 10 day stressed VaR, incremental risk charge and comprehensive risk capital charge. These measures are based on the scope of the global trading book with internal models approach (IMA) approval from OSFI for calculating regulatory market risk capital.

| (Millions of Canadian dollars)                   |   | Value                  |                        |
|--|---|------------------------|------------------------|
| <b>VaR (10 day 99%)<sup>1,2</sup></b>            |   | As at January 31, 2021 | As at October 31, 2020 |
| 1  | Maximum value                           | 232                    | 276                    |
| 2  | Average value                           | 171                    | 161                    |
| 3  | Minimum value                           | 112                    | 98                     |
| 4  | Period end                              | 180                    | 185                    |
| <b>Stressed VaR (10 day 99%)<sup>1</sup></b>     |   |                        |                        |
| 5  | Maximum value                           | 212                    | 238                    |
| 6  | Average value                           | 160                    | 156                    |
| 7  | Minimum value                           | 117                    | 91                     |
| 8  | Period end                              | 169                    | 188                    |
| <b>Incremental Risk Charge (99.9%)</b>           |   |                        |                        |
| 9  | Maximum value                           | 677                    | 625                    |
| 10   | Average value                           | 564                    | 503                    |
| 11   | Minimum value                           | 452                    | 400                    |
| 12   | Period end                              | 557                    | 537                    |
| <b>Comprehensive Risk capital charge (99.9%)</b> |   |                        |                        |
| 13   | Maximum value                           | -                      | -                      |
| 14   | Average value                           | -                      | -                      |
| 15   | Minimum value                           | -                      | -                      |
| 16   | Period end                              | -                      | -                      |
| 17   | Floor (standardized measurement method) | -                      | -                      |

<sup>1</sup> The portfolio included in regulatory VaR and SVaR represents a subset of the portfolio captured in management VaR and SVaR reported in the Market Risk section of the 2020 Annual Report.

<sup>2</sup> VaR shown this quarter now reflects the more conservative of either a one-day holding period scaled up to a ten-day holding period or the direct ten-day holding period. Amounts for Oct. 31, 2020 have been revised from those previously presented to reflect this.

Average IRC of \$564 million increased \$61 million due to higher fixed income inventories.

**LEVERAGE**
**LR1: Summary comparison of accounting assets vs leverage ratio exposure measure**

The following table presents a reconciliation of our total assets per our published financial statements to our leverage ratio exposure measure.

| LEVERAGE RATIO <sup>1</sup>   |  | Q1/2021            | Q4/2020          | Q3/2020          | Q2/2020          | Q1/2020          |
|---|--|--------------------|------------------|------------------|------------------|------------------|
| Summary comparison of accounting assets vs. leverage ratio exposure measure<br>(Millions of Canadian dollars) |  |                    |                  |                  |                  |                  |
| 1   | <b>Total consolidated assets as per published financial statements</b>   | <b>\$1,671,151</b> | <b>1,624,548</b> | <b>1,683,134</b> | <b>1,675,682</b> | <b>1,476,304</b> |
| 2   | Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation | (16,464)           | (16,147)         | (16,470)         | (15,223)         | (15,705)         |
| 3   | Adjustment for securitized exposures that meet the operational requirements for the recognition of risk transfer <sup>2</sup>  | -                  | (5,528)          | (5,529)          | (5,529)          | (6,503)          |
| 4   | Adjustment for fiduciary assets recognized on the balance sheet pursuant to the operative accounting framework but excluded from the leverage ratio exposure measure               | -                  | -                | -                | -                | -                |
| 5   | Adjustments for derivative financial instruments   | (28,579)           | (30,842)         | (75,457)         | (50,686)         | (6,427)          |
| 6   | Adjustment for securities financing transactions (SFT) (i.e. repo assets and similar secured lending)  | 14,314             | 12,123           | 14,491           | 15,872           | 12,661           |
| 7   | Adjustments for off-balance sheet items (i.e., credit equivalent amounts of off-balance sheet exposures)   | 210,955            | 208,192          | 204,916          | 199,426          | 200,011          |
| 8   | Other adjustments <sup>3</sup>   | (266,043)          | (239,483)        | (261,574)        | (241,820)        | (30,457)         |
| 9   | <b>Leverage Ratio Exposure</b>   | <b>\$1,585,334</b> | <b>1,552,863</b> | <b>1,543,511</b> | <b>1,577,722</b> | <b>1,629,884</b> |

<sup>1</sup> Based on OSFI's Leverage Requirements Guideline issued in October 2018.

<sup>2</sup> OSFI's October 2018 Leverage Requirements Guideline allows for the exclusion of securitized exposures that meet the operational requirements for risk transference. In Q1/2021 transitional methodology changes under the securitization framework did not allow us to recognize risk transference as further explained in SEC 1.

<sup>3</sup> Includes OSFI permitted exclusion of central bank reserves and sovereign-issued securities that qualify as high quality liquid assets and exposures related to the US Government Payment Protection Program (PPP).



## LR2: Leverage ratio common disclosure template

The following table presents a detailed breakdown of the components of our leverage ratio. Maintaining a prescribed minimum level of leverage helps neutralizes leverage risk in the event of unexpected economic crises. OSFI requires maintenance of a minimum leverage ratio of 3% at all times.

| LEVERAGE RATIO COMMON DISCLOSURE TEMPLATE <sup>1</sup> |   | Q1/2021          | Q4/2020          | Q3/2020          | Q2/2020          | Q1/2020          |
|--|---|------------------|------------------|------------------|------------------|------------------|
| (Millions of Canadian dollars, except percentages)     |   |                  |                  |                  |                  |                  |
| <b>On-balance sheet exposures</b>                      |   |                  |                  |                  |                  |                  |
| 1  | On-balance sheet items (excluding derivatives, SFTs and grandfathered securitization exposures, but including collateral)                   | 996,797          | 967,523          | 970,360          | 985,261          | 1,035,249        |
| 2  | Gross-up for derivatives collateral provided where deducted from balance sheet assets pursuant to the operative accounting framework (IFRS) | -                | -                | -                | -                | -                |
| 3  | (Deductions of receivables assets for cash variation margin provided in derivatives transactions)   | (16,328)         | (17,400)         | (23,487)         | (25,142)         | (15,041)         |
| 4  | (Asset amounts deducted in determining Basel III Tier 1 capital)  | (14,840)         | (14,410)         | (14,177)         | (14,513)         | (15,363)         |
| 5  | <b>Total on-balance sheet exposure (excluding derivatives and SFTs) (sum of lines 1 and 4)</b>  | <b>965,629</b>   | <b>935,713</b>   | <b>932,696</b>   | <b>945,606</b>   | <b>1,004,845</b> |
| <b>Derivatives exposures</b>                           |   |                  |                  |                  |                  |                  |
| 6  | Replacement cost associated with all derivatives transactions (i.e., net of eligible cash variation margin)                                 | 25,968           | 28,186           | 31,839           | 37,488           | 27,969           |
| 7  | Add-on amounts for potential future exposure (PFE) associated with all derivatives transactions   | 55,546           | 53,236           | 49,280           | 52,294           | 59,270           |
| 8  | (Exempted central counterparty (CCP)-leg of client-cleared trade exposures)   | -                | -                | -                | -                | -                |
| 9  | Adjusted effective notional amount of written credit derivatives  | 824              | 1,225            | 802              | 340              | 316              |
| 10   | (Adjusted effective notional offsets and add-on deductions for written credit derivatives)  | -                | -                | -                | -                | -                |
| 11   | <b>Total derivative exposures (sum of lines 6 to 10)</b>  | <b>82,338</b>    | <b>82,647</b>    | <b>81,921</b>    | <b>90,122</b>    | <b>87,555</b>    |
| <b>Securities financing transaction exposures</b>      |   |                  |                  |                  |                  |                  |
| 12   | Gross SFT assets recognized for accounting purposes (with no recognition of netting), after adjusting for sale accounting transactions      | 357,257          | 349,971          | 360,469          | 378,910          | 378,787          |
| 13   | (Netted amounts of cash payables and cash receivables of gross SFT assets)  | (45,160)         | (35,783)         | (50,981)         | (52,213)         | (53,975)         |
| 14   | Counterparty credit risk (CCR) exposure for SFTs  | 14,314           | 12,123           | 14,491           | 15,872           | 12,661           |
| 15   | Agent transaction exposures   | -                | -                | -                | -                | -                |
| 16   | <b>Total securities financing transaction exposures (sum of lines 12 to 15)</b>   | <b>326,411</b>   | <b>326,311</b>   | <b>323,979</b>   | <b>342,569</b>   | <b>337,473</b>   |
| <b>Other off-balance sheet exposures</b>               |   |                  |                  |                  |                  |                  |
| 17   | Off-balance sheet exposures at gross notional amount  | 626,427          | 594,156          | 598,358          | 573,779          | 566,404          |
| 18   | (Adjustments for conversion to credit equivalent amounts)   | (415,471)        | (385,964)        | (393,443)        | (374,354)        | (366,393)        |
| 19   | <b>Off-balance sheet items (sum of lines 17 and 18)</b>   | <b>210,956</b>   | <b>208,192</b>   | <b>204,915</b>   | <b>199,425</b>   | <b>200,011</b>   |
| <b>Capital and Total Exposures</b>                     |   |                  |                  |                  |                  |                  |
| 20   | <b>Tier 1 capital</b>   | <b>76,733</b>    | <b>74,005</b>    | <b>73,536</b>    | <b>70,854</b>    | <b>68,709</b>    |
| 20a  | <b>Tier 1 capital with transitional arrangements for ECL provisioning not applied</b>   | <b>75,757</b>    | <b>72,559</b>    | <b>72,179</b>    | <b>69,616</b>    |                  |
| 21   | <b>Total Exposures (sum of lines 3,11,16 and 19)</b>  | <b>1,585,334</b> | <b>1,552,863</b> | <b>1,543,511</b> | <b>1,577,722</b> | <b>1,629,884</b> |
| <b>Leverage ratio</b>                                  |   |                  |                  |                  |                  |                  |
| 22   | <b>Basel III leverage ratio</b>   | <b>4.8%</b>      | <b>4.8%</b>      | <b>4.8%</b>      | <b>4.5%</b>      | <b>4.2%</b>      |
| 22a  | <b>Basel III leverage ratio with transitional arrangements for ECL provisioning not applied</b>   | <b>4.8%</b>      | <b>4.7%</b>      | <b>4.7%</b>      | <b>4.4%</b>      |                  |

<sup>1</sup> Based on OSFI's Leverage Requirements Guideline issued October 2018.

Our Leverage ratio of 4.8% was unchanged from last quarter, as internal capital generation and the issuance of Limited Recourse Capital Notes were offset by higher leverage exposures.

Leverage exposures increased by \$32.4 billion, mainly due to business growth primarily in cash and due from banks, securities and loans, partially offset by the impact of foreign exchange translation and higher regulatory modifications for central bank reserves and sovereign-issued securities qualifying as HQLA.

**TOTAL LOSS ABSORBING CAPACITY (TLAC) DISCLOSURE REQUIREMENTS**
**KM2: Key metrics – TLAC requirements (at resolution group level)**

The following summary table provides information about our total loss-absorbing capacity (TLAC) available, and TLAC requirements applied, at the resolution group level under a Single Point of Entry. TLAC requirements establish two minimum standards, which are required to be met effective November 1, 2021: the risk-based TLAC ratio, which builds on the risk-based capital ratios described in the CAR guideline, and the TLAC leverage ratio, which builds on the leverage ratio described in OSFI's Leverage Requirements guideline. The risk-based TLAC ratio is defined as TLAC divided by total risk-weighted assets (RWA) while the TLAC leverage ratio is defined as TLAC divided by the Leverage ratio exposure. OSFI has provided notification requiring systemically important banks to maintain a minimum TLAC ratio of 22.5% (inclusive of the revised domestic stability buffer of 1% in Q2 2020) and a TLAC leverage ratio of 6.75%. Our TLAC ratio is expected to increase through normal course refinancing of maturing debt through the effective date of the TLAC requirements.

|   |  | a                  | b                  | c               | d                | e                  | f                   |
|---|--|--------------------|--------------------|-----------------|------------------|--------------------|---------------------|
|   |  | January 31<br>2021 | October 31<br>2020 | July 31<br>2020 | April 30<br>2020 | January 31<br>2020 | Change<br>(a) - (b) |
| (Millions of Canadian dollars, except as otherwise noted) |  |                    |                    |                 |                  |                    |                     |
| <b>Resolution group<sup>1</sup></b>                       |  |                    |                    |                 |                  |                    |                     |
| 1   | Total loss-absorbing capacity (TLAC) available   | 125,619            | 119,832            | 116,492         | 110,077          | 103,019            | 5,787               |
| 1a  | Total loss-absorbing capacity (TLAC) available with transitional arrangements for ECL provisioning not applied   | 125,619            | 119,832            | 116,492         | 110,077          |                    | 5,787               |
| 2   | Total RWA at the level of the resolution group   | 557,519            | 546,242            | 551,421         | 558,412          | 523,725            | 11,277              |
| 3   | TLAC ratio: TLAC as a percentage of RWA (row 1/row 2) (%)  | 22.5%              | 21.9%              | 21.1%           | 19.7%            | 19.7%              | 0.6%                |
| 3a  | TLAC ratio: TLAC as a percentage of RWA (row 1a / row 2) (%) available with transitional arrangements for ECL provisioning not applied   | 22.5%              | 21.9%              | 21.1%           | 19.7%            |                    | 0.6%                |
| 4   | Leverage ratio exposure measure at the level of the resolution group   | 1,585,334          | 1,552,863          | 1,543,511       | 1,577,722        | 1,629,884          | 32,471              |
| 5   | TLAC Leverage Ratio: TLAC as a percentage of leverage ratio exposure measure (row 1/row 4) (%)   | 7.9%               | 7.7%               | 7.5%            | 7.0%             | 6.3%               | 0.2%                |
| 5a  | TLAC Leverage Ratio: TLAC as a percentage of leverage ratio exposure measure (row 1a/row 4) (%) with transitional arrangements for ECL provisioning not applied  | 7.9%               | 7.7%               | 7.5%            | 7.0%             |                    | 0.2%                |
| 6a  | Does the subordination exemption in the antepenultimate paragraph of Section 11 of the FSB TLAC Term Sheet apply?  | Yes                | Yes                | Yes             | Yes              | Yes                | -                   |
| 6b  | Does the subordination exemption in the penultimate paragraph of Section 11 of the FSB TLAC Term Sheet apply?  | No                 | No                 | No              | No               | No                 | -                   |
| 6c  | If the capped subordination exemption applies, the amount of funding issued that ranks pari passu with Excluded Liabilities and that is recognized as external TLAC, divided by funding issued that ranks pari passu with Excluded Liabilities and that would be recognized as external TLAC if no cap was applied (%) | N/A                | N/A                | N/A             | N/A              | N/A                | -                   |

<sup>1</sup> Lines 1, 3 and 5 incorporate expected credit loss (ECL) transitional modification provided by OSFI as announced on March 27, 2020. Lines 1a, 3a and 5a represent TLAC available with transitional arrangements for ECL provisioning not applied.

Our TLAC ratio of 22.5% is up by 60bps QoQ, reflecting a \$5.8 billion increase in available TLAC. The TLAC leverage ratio of 7.9% was up 20 bps, reflecting the increase in available TLAC that was partially offset by the increase in leverage exposures as noted in LR2.

**TLAC1: TLAC composition (at resolution group level)**

The following table presents details of the composition of our TLAC.

As at January 31, 2021

| (Millions of Canadian dollars, except as otherwise noted) |  | Amount    |
|---|--|-----------|
|   | <b>Regulatory capital elements of TLAC and adjustments</b>   |           |
| 1   | Common Equity Tier 1 capital (CET1)  | 69,555    |
| 2   | Additional Tier 1 capital (AT1) before TLAC adjustments  | 7,178     |
| 3   | AT1 ineligible as TLAC as issued out of subsidiaries to third parties  | -         |
| 4   | Other adjustments  | -         |
| 5   | AT1 instruments eligible under the TLAC framework  | 7,178     |
| 6   | Tier 2 capital (T2) before TLAC adjustments  | 9,810     |
| 7   | Amortised portion of T2 instruments where remaining maturity > 1 year  | 450       |
| 8   | T2 capital ineligible as TLAC as issued out of subsidiaries to third parties   | -         |
| 9   | Other adjustments  | -         |
| 10  | T2 instruments eligible under the TLAC framework   | 10,260    |
| 11  | TLAC arising from regulatory capital   | 86,994    |
|   | <b>Non-regulatory capital elements of TLAC</b>   |           |
| 12  | External TLAC instruments issued directly by the bank and subordinated to excluded liabilities   | -         |
| 13  | External TLAC instruments issued directly by the bank which are not subordinated to excluded liabilities but meet all other TLAC term sheet requirements             | 38,670    |
| 14  | Of which: amount eligible as TLAC after application of the caps  | 38,670    |
| 15  | External TLAC instruments issued by funding vehicles prior to January 1, 2022  | -         |
| 16  | Eligible ex ante commitments to recapitalise a G-SIB in resolution   | -         |
| 17  | TLAC arising from non-regulatory capital instruments before adjustments  | 38,670    |
|   | <b>Non-regulatory capital elements of TLAC: adjustments</b>  |           |
| 18  | TLAC before deductions   | 125,664   |
| 19  | Deductions of exposures between MPE resolution groups that correspond to items eligible for TLAC (not applicable to SPE G-SIBs and D-SIBs)                           | -         |
| 20  | Deduction of investments in own other TLAC liabilities   | (46)      |
| 21  | Other adjustments to TLAC  | -         |
| 22  | TLAC available after deductions  | 125,619   |
|   | <b>Risk-weighted assets and leverage exposure measure for TLAC purposes</b>  |           |
| 23  | Total risk-weighted assets adjusted as permitted under the TLAC regime   | 557,519   |
| 24  | Leverage exposure measure  | 1,585,334 |
|   | <b>TLAC ratios and buffers</b>   |           |
| 25  | TLAC Ratio (as a percentage of risk-weighted assets adjusted as permitted under the TLAC regime, row 22 / row 23)  | 22.5%     |
| 26  | TLAC Leverage Ratio (as a percentage of leverage exposure)   | 7.9%      |
| 27  | CET1 (as a percentage of risk-weighted assets) available after meeting the resolution group's minimum capital and TLAC requirements                                  | N/A       |
| 28  | Institution-specific buffer (capital conservation buffer plus countercyclical buffer plus higher loss absorbency, expressed as a percentage of risk-weighted assets) | 3.5%      |
| 29  | Of which: capital conservation buffer  | 2.5%      |
| 30  | Of which: bank specific countercyclical buffer   | 0.0%      |
| 31  | Of which: higher loss absorbency   | 1.0%      |

**TLAC1: TLAC composition (at resolution group level) (continued)**

As at October 31, 2020

| (Millions of Canadian dollars, except as otherwise noted)                   |  | Amount    |
|---|--|-----------|
| <b>Regulatory capital elements of TLAC and adjustments</b>                  |  |           |
| 1   | Common Equity Tier 1 capital (CET1)  | 68,082    |
| 2   | Additional Tier 1 capital (AT1) before TLAC adjustments  | 5,923     |
| 3   | AT1 ineligible as TLAC as issued out of subsidiaries to third parties  |           |
| 4   | Other adjustments  |           |
| 5   | AT1 instruments eligible under the TLAC framework  | 5,923     |
| 6   | Tier 2 capital (T2) before TLAC adjustments  | 10,923    |
| 7   | Amortised portion of T2 instruments where remaining maturity > 1 year  | 66        |
| 8   | T2 capital ineligible as TLAC as issued out of subsidiaries to third parties   |           |
| 9   | Other adjustments  |           |
| 10  | T2 instruments eligible under the TLAC framework   | 10,989    |
| 11  | TLAC arising from regulatory capital   | 84,994    |
| <b>Non-regulatory capital elements of TLAC</b>                              |  |           |
| 12  | External TLAC instruments issued directly by the bank and subordinated to excluded liabilities   |           |
| 13  | External TLAC instruments issued directly by the bank which are not subordinated to excluded liabilities but meet all other TLAC term sheet requirements             | 34,902    |
| 14  | Of which: amount eligible as TLAC after application of the caps  | 34,902    |
| 15  | External TLAC instruments issued by funding vehicles prior to January 1, 2022  |           |
| 16  | Eligible ex ante commitments to recapitalise a G-SIB in resolution   |           |
| 17  | TLAC arising from non-regulatory capital instruments before adjustments  | 34,902    |
| <b>Non-regulatory capital elements of TLAC: adjustments</b>                 |  |           |
| 18  | TLAC before deductions   | 119,896   |
| 19  | Deductions of exposures between MPE resolution groups that correspond to items eligible for TLAC (not applicable to SPE G-SIBs and D-SIBs)                           | -         |
| 20  | Deduction of investments in own other TLAC liabilities   | (64)      |
| 21  | Other adjustments to TLAC  |           |
| 22  | TLAC available after deductions  | 119,832   |
| <b>Risk-weighted assets and leverage exposure measure for TLAC purposes</b> |  |           |
| 23  | Total risk-weighted assets adjusted as permitted under the TLAC regime   | 546,242   |
| 24  | Leverage exposure measure  | 1,552,863 |
| <b>TLAC ratios and buffers</b>  |  |           |
| 25  | TLAC Ratio (as a percentage of risk-weighted assets adjusted as permitted under the TLAC regime, row 22 / row 23)  | 21.9%     |
| 26  | TLAC Leverage Ratio (as a percentage of leverage exposure)   | 7.7%      |
| 27  | CET1 (as a percentage of risk-weighted assets) available after meeting the resolution group's minimum capital and TLAC requirements                                  | N/A       |
| 28  | Institution-specific buffer (capital conservation buffer plus countercyclical buffer plus higher loss absorbency, expressed as a percentage of risk-weighted assets) | 3.5%      |
| 29  | Of which: capital conservation buffer  | 2.5%      |
| 30  | Of which: bank specific countercyclical buffer   | 0.0%      |
| 31  | Of which: higher loss absorbency   | 1.0%      |

**TLAC2: Material subgroup entity – creditor ranking at legal entity level (G-SIBs only)**

TLAC 2 is a G-SIB disclosure requirement to provide the ranking of the liability structure of all our material subsidiaries in foreign jurisdictions as defined by the FSB TLAC term sheet. RBC US Group Holdings LLC (“RBC IHC”) is a material subsidiary entity for which TLAC 2 disclosure would be required. Effective January 1, 2021, RBC IHC must comply with the Federal Reserve TLAC rules which require reporting of TLAC ratios for calendar quarters commencing June 2021. OSFI has advised RBC it can align its IHC TLAC 2 disclosure requirements to similarly commence in Q3 2021 and will require only disclosure of IHC calendar quarter TLAC ratios. OSFI does require us to disclose TLAC 2 for any other material subsidiary identified, however, at this time RBC IHC is our only material subsidiary.

**TLAC3: Resolution entity – creditor ranking at legal entity level**

The following table provides information regarding the ranking of our unsecured liabilities structure at the resolution entity level.

As at January 31, 2021

|   |   | Creditor ranking |   |                   |                           |   | Sum    |
|---|---|------------------|---|-------------------|---------------------------|---|--------|
|   |   | 1                | 2   | 3                 | 4                         | 5   |        |
| (Millions of Canadian dollars, except as otherwise noted) |   | (most junior)    |   |                   |                           |   |        |
| 1   | Description of creditor ranking   | Common shares    | Preferred shares and Limited Recourse Capital Notes | Subordinated Debt | Bail-in Debt <sup>1</sup> | Other Liabilities excluding Bail-in Debt and Subordinated Debt <sup>2</sup> |        |
| 2   | Total capital and liabilities net of credit risk mitigation                           | 17,664           | 7,198   | 8,974             | 39,901                    | -   | 73,737 |
| 3   | Subset of row 2 that are excluded liabilities   | 26               | -   | 48                | 859                       | -   | 933    |
| 4   | Total capital and liabilities less excluded liabilities (row 2 minus row 3)           | 17,638           | 7,198   | 8,926             | 39,042                    | -   | 72,804 |
| 5   | Subset of row 4 that are <i>potentially</i> eligible as TLAC                          | 17,638           | 7,175   | 8,677             | 39,042                    | -   | 72,532 |
| 6   | Subset of row 5 with 1 year ≤ residual maturity < 2 years                             |                  |   | -                 | 4,925                     | -   | 4,925  |
| 7   | Subset of row 5 with 2 years ≤ residual maturity < 5 years                            |                  |   | 2,029             | 28,612                    | -   | 30,641 |
| 8   | Subset of row 5 with 5 years ≤ residual maturity < 10 years                           |                  |   | 5,212             | 2,490                     | -   | 7,702  |
| 9   | Subset of row 5 with residual maturity ≥ 10 years, but excluding perpetual securities |                  |   | 1,436             | 3,015                     | -   | 4,451  |
| 10  | Subset of row 5 that is perpetual securities  | 17,638           | 7,175   | -                 | -                         | -   | 24,813 |

<sup>1</sup> Under the Bail-in Regime, Bail-in Debt which would ordinarily rank equally to Other Liabilities in liquidation, is subject to conversion under statutory resolution powers whereas Other Liabilities are not subject to such conversion.

<sup>2</sup> Completion of this column is not required by OSFI at this time.

**TLAC3: Resolution entity – creditor ranking at legal entity level (continued)**

As at October 31, 2020

|   |   | Creditor ranking |   |                   |                           |   | Sum    |
|---|---|------------------|---|-------------------|---------------------------|---|--------|
|   |   | 1                | 2   | 3                 | 4                         | 5   |        |
| (Millions of Canadian dollars, except as otherwise noted) |   | (most junior)    |   |                   |                           |   |        |
| 1   | Description of creditor ranking   | Common shares    | Preferred shares and Limited Recourse Capital Notes | Subordinated Debt | Bail-in Debt <sup>1</sup> | Other Liabilities excluding Bail-in Debt and Subordinated Debt <sup>2</sup> |        |
| 2   | Total capital and liabilities net of credit risk mitigation                           | 17,628           | 5,948   | 9,573             | 37,365                    | -   | 70,514 |
| 3   | Subset of row 2 that are excluded liabilities   | 129              | 4   | 4                 | 2,080                     | -   | 2,217  |
| 4   | Total capital and liabilities less excluded liabilities (row 2 minus row 3)           | 17,499           | 5,944   | 9,569             | 35,285                    | -   | 68,297 |
| 5   | Subset of row 4 that are <i>potentially</i> eligible as TLAC                          | 17,499           | 5,920   | 9,310             | 35,285                    | -   | 68,014 |
| 6   | Subset of row 5 with 1 year ≤ residual maturity < 2 years                             |                  |   | -                 | 2,999                     | -   | 2,999  |
| 7   | Subset of row 5 with 2 years ≤ residual maturity < 5 years                            |                  |   | 110               | 26,838                    | -   | 26,948 |
| 8   | Subset of row 5 with 5 years ≤ residual maturity < 10 years                           |                  |   | 8,744             | 3,076                     | -   | 11,820 |
| 9   | Subset of row 5 with residual maturity ≥ 10 years, but excluding perpetual securities |                  |   | 456               | 2,372                     | -   | 2,828  |
| 10  | Subset of row 5 that is perpetual securities  | 17,499           | 5,920   | -                 | -                         | -   | 23,419 |

<sup>1</sup> Under the Bail-in Regime, Bail-in Debt which would ordinarily rank equally to Other Liabilities in liquidation, is subject to conversion under statutory resolution powers whereas Other Liabilities are not subject to such conversion.

<sup>2</sup> Completion of this column is not required by OSFI at this time.



**OPERATIONAL RISK**

The table below presents an overview of Pillar 3 disclosure requirements that have been met within our 2020 Annual Report and incorporated by reference into this Pillar 3 report. Our 2020 Annual Report is available free of charge on our website at <http://www.rbc.com/investorrelations>

| Pillar 3 disclosures requirement |  | RBC 2020 Annual Report section | Sub-section              |
|----------------------------------|--|--------------------------------|--------------------------|
| a)                               | Details of the approach for operational risk capital assessment for which the bank qualifies                               | Operational risk               | Operational risk capital |
| b)                               | Description of the advanced measurement approaches for operational risk (AMA) <sup>1</sup>                                 | n/a                            | n/a                      |
| c)                               | For banks using the AMA, a description of the use of insurance for the purpose of mitigating operational risk <sup>1</sup> | n/a                            | n/a                      |

<sup>1</sup> Effective November 1, 2019, OSFI discontinued the AMA approach.

**INTEREST RATE RISK IN THE BANKING BOOK**

The table below presents an overview of Pillar 3 disclosure requirements that have been met within our 2020 Annual Report and incorporated by reference into this Pillar 3 report. Our 2020 Annual Report is available free of charge on our website at <http://www.rbc.com/investorrelations>

| Pillar 3 disclosures requirement       | RBC 2020 Annual Report section | Sub-section |
|--|--------------------------------|-------------|
| Interest rate risk in the banking book | Market Risk                    | Market Risk |