

Third Quarter 2021



Royal Bank of Canada third quarter 2021 results

All amounts are in Canadian dollars and are based on financial statements presented in compliance with International Accounting Standard 34 *Interim Financial Reporting*, unless otherwise noted.

Net Income
\$4.3 Billion
Up 34% YoY

Diluted EPS⁽¹⁾
\$2.97
Up 35% YoY

PCL⁽²⁾
\$(540) Million
PCL on loans ratio down
23 bps⁽³⁾ QoQ

ROE⁽⁴⁾
19.6%
Up from 15.7% last year

CET1 Ratio
13.6%
Well above regulatory
requirements

TORONTO, August 25, 2021 — Royal Bank of Canada (RY on TSX and NYSE) today reported net income of \$4.3 billion for the quarter ended July 31, 2021, up \$1.1 billion or 34% from the prior year. Diluted EPS was \$2.97, up 35% over the same period. Our results this quarter included releases of provisions on performing loans of \$638 million mainly driven by improvements in our credit quality and macroeconomic outlook as compared to provisions of \$280 million taken in the prior year due to the evolving impact of the COVID-19 pandemic. Earnings in Personal & Commercial Banking, Capital Markets and Wealth Management were up from last year, largely due to the favourable impact of lower provisions. Higher results in Insurance and Investor & Treasury Services also contributed to the increase.

Pre-provision, pre-tax earnings⁽⁵⁾ of \$5.0 billion were up 6% from a year ago, mainly reflecting strong client-driven growth in volumes and fee-based assets, constructive markets, record investment banking revenue and well-controlled discretionary expenses, partially offset by the impact of low interest rates, lower trading revenue and higher variable compensation on improved results.

Compared to last quarter, net income was up \$281 million with higher results in Personal & Commercial Banking, Capital Markets, Wealth Management, and Insurance. These results were partially offset by lower earnings in Investor & Treasury Services.

The PCL on loans ratio of (28) bps was down 23 bps from last quarter primarily due to lower provisions in Personal & Commercial Banking and Capital Markets. The PCL on impaired loans ratio of 8 bps decreased 3 bps from last quarter.

Our capital position remained robust, with a Common Equity Tier 1 (CET1) ratio of 13.6% supporting strong client-driven volume growth and \$1.5 billion in common share dividends paid.

"Guided by our Purpose, RBC continued to deliver on our commitment of providing long-term, sustainable value to our clients, communities and shareholders. Our diversified businesses and disciplined approach to risk and cost management underpinned our results, supported by the significant investments we've made in technology and talent to fuel our momentum and deliver differentiated value to those we serve. We remain cautiously optimistic about the macroeconomic outlook and focused on supporting clients and communities through the ongoing recovery."

— Dave McKay, RBC President and Chief Executive Officer

Q3 2021 Compared to Q3 2020

- Net income of \$4,296 million ↑ 34%
- Diluted EPS of \$2.97 ↑ 35%
- ROE of 19.6% ↑ 390 bps
- CET1 ratio of 13.6% ↑ 160 bps

Q3 2021 Compared to Q2 2021

- Net income of \$4,296 million ↑ 7%
- Diluted EPS of \$2.97 ↑ 8%
- ROE of 19.6% ↑ 20 bps
- CET1 ratio of 13.6% ↑ 80 bps

YTD 2021 Compared to YTD 2020

- Net income of \$12,158 million ↑ 48%
- Diluted EPS of \$8.39 ↑ 50%
- ROE of 19.2% ↑ 560 bps

(1) Earnings per share (EPS).

(2) Provision for credit losses (PCL).

(3) Basis points (bps).

(4) Return on equity (ROE). This measure does not have a standardized meaning under generally accepted accounting principles (GAAP). For further information, refer to the Key performance and non-GAAP measures section of this Q3 2021 Report to Shareholders.

(5) Pre-provision, pre-tax earnings is calculated as income before income taxes and PCL. This is a non-GAAP measure. For further information, refer to the Key Performance and Non-GAAP Measures section of our Q3 2021 Earnings Release.

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Management's Discussion and Analysis

Management's Discussion and Analysis (MD&A) is provided to enable a reader to assess our results of operations and financial condition for the three and nine month periods ended or as at July 31, 2021, compared to the corresponding periods in the prior fiscal year and the three month period ended April 30, 2021. This MD&A should be read in conjunction with our unaudited Interim Condensed Consolidated Financial Statements for the quarter ended July 31, 2021 (Condensed Financial Statements) and related notes and our 2020 Annual Report. This MD&A is dated August 24, 2021. All amounts are in Canadian dollars, unless otherwise specified, and are based on financial statements presented in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB), unless otherwise noted.

Additional information about us, including our 2020 Annual Information Form, is available free of charge on our website at rbc.com/investorrelations, on the Canadian Securities Administrators' website at sedar.com and on the EDGAR section of the United States (U.S.) Securities and Exchange Commission's (SEC) website at sec.gov.

Information contained in or otherwise accessible through the websites mentioned herein does not form part of this report. All references in this report to websites are inactive textual references and are for your information only.

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 Q3 2021 Report to Shareholders, in other filings with Canadian regulators or the SEC, in other reports to shareholders, and in other communications. Forward-looking statements in this document include, but are not limited to, statements relating to our financial performance objectives, vision and strategic goals, the Economic, market, and regulatory review and outlook for Canadian, U.S., European and global economies, the regulatory environment in which we operate, and the risk environment including our credit risk, liquidity and funding risk, and the potential continued impacts of the coronavirus (COVID-19) pandemic on our business operations, financial results, condition and objectives and on the global economy and financial market conditions and includes our President and Chief Executive Officer's statements. The forward-looking information contained in this document is presented for the purpose of assisting the holders of our securities and financial analysts in understanding our financial position and results of operations as at and for the periods ended on the dates presented, as well as our financial performance objectives, vision and strategic goals, and may not be appropriate for other purposes. 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 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. These factors – many of which are beyond our control and the effects of which can be difficult to predict – include: credit, market, liquidity and funding, insurance, operational, regulatory compliance (which could lead to us being subject to various legal and regulatory proceedings, the potential outcome of which could include regulatory restrictions, penalties and fines), strategic, reputation, legal and regulatory environment, competitive and systemic risks and other risks discussed in the risk sections and Significant developments: COVID-19 section of our 2020 Annual Report and the Risk management and Impact of COVID-19 pandemic sections of this Q3 2021 Report to Shareholders; including business and economic conditions, information technology and cyber risks, Canadian housing and household indebtedness, geopolitical uncertainty, privacy, data and third-party related risks, regulatory changes, environmental and social risk (including climate change), and digital disruption and innovation, culture and conduct, the business and economic conditions in the geographic regions in which we operate, the effects of changes in government fiscal, monetary and other policies, tax risk and transparency, and the emergence of widespread health emergencies or public health crises such as pandemics and epidemics, including the COVID-19 pandemic and its impact on the global economy and financial market conditions and our business operations, and financial results, condition and objectives.

We caution that the foregoing list of risk factors is not exhaustive and other factors could also adversely affect our results. When relying on our forward-looking statements to make decisions with respect to us, investors and others should carefully consider the foregoing factors and other uncertainties and potential events. Material economic assumptions underlying the forward-looking statements contained in this Q3 2021 Report to Shareholders are set out in the Economic, market and regulatory review and outlook section and for each business segment under the Strategic priorities and Outlook headings in our 2020 Annual Report, as updated by the Economic, market and regulatory review and outlook and Impact of COVID-19 pandemic sections of this Q3 2021 Report to Shareholders. 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.

Additional information about these and other factors can be found in the risk sections and Significant developments: COVID-19 section of our 2020 Annual Report and the Risk management and Impact of COVID-19 pandemic sections of this Q3 2021 Report to Shareholders.

Overview and outlook

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 88,000+ 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 our 17 million clients in Canada, the U.S. and 27 other countries. Learn more at rbc.com.

Selected financial and other highlights

	As at or for the three months ended			As at or for the nine months ended	
	July 31 2021	April 30 2021	July 31 2020	July 31 2021	July 31 2020
(Millions of Canadian dollars, except per share, number of and percentage amounts)					
Total revenue	\$ 12,756	\$ 11,618	\$ 12,920	\$ 37,317	\$ 36,089
Provision for credit losses (PCL)	(540)	(96)	675	(526)	3,924
Insurance policyholder benefits, claims and acquisition expense (PBCAE)	1,304	149	1,785	2,859	3,222
Non-interest expense	6,420	6,379	6,380	19,341	18,700
Income before income taxes	5,572	5,186	4,080	15,643	10,243
Net income	\$ 4,296	\$ 4,015	\$ 3,201	\$ 12,158	\$ 8,191
Segments – net income					
Personal & Commercial Banking	\$ 2,113	\$ 1,908	\$ 1,367	\$ 5,814	\$ 3,585
Wealth Management	738	691	562	2,078	1,609
Insurance	234	187	216	622	577
Investor & Treasury Services	88	120	76	331	445
Capital Markets	1,129	1,071	949	3,267	1,936
Corporate Support	(6)	38	31	46	39
Net income	\$ 4,296	\$ 4,015	\$ 3,201	\$ 12,158	\$ 8,191
Selected information					
Earnings per share (EPS) – basic	\$ 2.97	\$ 2.76	\$ 2.20	\$ 8.40	\$ 5.61
– diluted	2.97	2.76	2.20	8.39	5.60
Return on common equity (ROE) (1), (2)	19.6%	19.4%	15.7%	19.2%	13.6%
Average common equity (1)	\$ 85,800	\$ 83,450	\$ 79,350	\$ 83,300	\$ 78,750
Net interest margin (NIM) – on average earning assets, net	1.51%	1.50%	1.49%	1.50%	1.56%
PCL on loans as a % of average net loans and acceptances	(0.28)%	(0.05)%	0.40%	(0.09)%	0.77%
PCL on performing loans as a % of average net loans and acceptances	(0.36)%	(0.16)%	0.17%	(0.19)%	0.50%
PCL on impaired loans as a % of average net loans and acceptances	0.08%	0.11%	0.23%	0.10%	0.27%
Gross impaired loans (GIL) as a % of loans and acceptances	0.35%	0.40%	0.57%	0.35%	0.57%
Liquidity coverage ratio (LCR) (3)	125%	133%	154%	125%	154%
Net stable funding ratio (NSFR) (4)	116%	118%	n.a.	116%	n.a.
Capital ratios and Leverage ratio					
Common Equity Tier 1 (CET1) ratio	13.6%	12.8%	12.0%	13.6%	12.0%
Tier 1 capital ratio	15.0%	14.1%	13.3%	15.0%	13.3%
Total capital ratio	16.7%	15.8%	15.3%	16.7%	15.3%
Leverage ratio	5.0%	5.0%	4.8%	5.0%	4.8%
Selected balance sheet and other information (5)					
Total assets	\$ 1,693,540	\$ 1,615,316	\$ 1,683,134	\$ 1,693,540	\$ 1,683,134
Securities, net of applicable allowance	271,950	255,152	290,513	271,950	290,513
Loans, net of allowance for loan losses	698,041	673,511	655,941	698,041	655,941
Derivative related assets	102,033	97,236	157,378	102,033	157,378
Deposits	1,084,878	1,033,323	1,017,158	1,084,878	1,017,158
Common equity	88,803	85,544	78,821	88,803	78,821
Total risk-weighted assets	543,047	555,607	551,421	543,047	551,421
Assets under management (AUM)	983,500	929,800	841,200	983,500	841,200
Assets under administration (AUA) (6)	6,369,400	6,111,000	5,872,900	6,369,400	5,872,900
Common share information					
Shares outstanding (000s) – average basic	1,424,614	1,424,889	1,422,705	1,424,278	1,424,364
– average diluted	1,427,198	1,427,107	1,427,777	1,426,548	1,429,543
– end of period	1,424,463	1,424,727	1,422,200	1,424,463	1,422,200
Dividends declared per common share	\$ 1.08	\$ 1.08	\$ 1.08	\$ 3.24	\$ 3.21
Dividend yield (7)	3.5%	3.9%	4.8%	3.9%	4.7%
Dividend payout ratio	36%	39%	49%	39%	57%
Common share price (RY on TSX) (8)	\$ 126.18	\$ 117.31	\$ 92.40	\$ 126.18	\$ 92.40
Market capitalization (TSX) (8)	179,739	167,135	131,411	179,739	131,411
Business information (number of)					
Employees (full-time equivalent) (FTE)	85,887	83,709	83,734	85,887	83,734
Bank branches	1,303	1,307	1,330	1,303	1,330
Automated teller machines (ATMs)	4,374	4,469	4,561	4,374	4,561
Period average US\$ equivalent of C\$1.00 (9)	0.812	0.798	0.737	0.796	0.740
Period-end US\$ equivalent of C\$1.00	0.801	0.813	0.747	0.801	0.747

- (1) Average amounts are calculated using methods intended to approximate the average of the daily balances for the period. This includes average common equity used in the calculation of ROE. For further details, refer to the Key performance and non-GAAP measures section.
- (2) This measure may not have a standardized meaning under generally accepted accounting principles (GAAP) and may not be comparable to similar measures disclosed by other financial institutions. For further details, refer to the Key performance and non-GAAP measures section.
- (3) LCR is the average for the three months ended for each respective period and is calculated in accordance with the Office of the Superintendent of Financial Institutions' (OSFI) Liquidity Adequacy Requirements (LAR) guidance as updated in accordance with the regulatory guidance issued in fiscal 2020. For further details, refer to the Liquidity and funding risk section.
- (4) Beginning in Q1 2021, OSFI requires Canadian Domestic Systemically Important Banks (D-SIBs) to disclose the NSFR on a prospective basis. The NSFR is calculated in accordance with OSFI's LAR guideline, which, in turn, reflects liquidity related requirements issued by the Basel Committee on Banking Supervision (BCBS). For further details, refer to the Liquidity and funding risk section.
- (5) Represents period-end spot balances.
- (6) AUA includes \$14.6 billion and \$2.9 billion (April 30, 2021 – \$15.0 billion and \$2.9 billion; July 31, 2020 – \$16.2 billion and \$6.7 billion) of securitized residential mortgages and credit card loans, respectively.
- (7) Defined as dividends per common share divided by the average of the high and low share price in the relevant period.
- (8) Based on TSX closing market price at period-end.
- (9) Average amounts are calculated using month-end spot rates for the period.
- n.a. not applicable

Economic, market and regulatory review and outlook – data as at August 24, 2021

The predictions and forecasts in this section are based on information and assumptions from sources we consider reliable. If this information or these assumptions are not accurate, actual economic outcomes may differ materially from the outlook presented in this section.

Economic and market review and outlook

While the global economic recovery is strengthening it will likely remain uneven. Vaccine distribution has accelerated in many advanced economies but remains slower in most emerging markets. Regions with higher vaccination rates and/or lower case counts have eased COVID-19 containment measures, and that is allowing for a recovery in economic activity in the near-term in those regions. While the hard hit travel and hospitality sectors are expected to continue to recover over the second half of calendar 2021, supply chain disruptions are having a significant impact on production capacity in some industries. Government support programs have maintained household purchasing power and are expected to continue to support a recovery in spending. Despite positive developments, uncertainty remains regarding vaccine efficacy against new variants of COVID-19, the potential impact of vaccine hesitancy, the timing of vaccine rollouts to certain age-groups, and global vaccine supply and availability, including uneven vaccine access. Moreover, a rapid rebound in consumer prices in some regions has raised inflation concerns, and resurging consumer demand could mean that higher inflation rates will last longer than central banks currently expect.

Canada

The spring wave of virus spread and accompanying re-imposition of containment measures in Canada slowed the economic recovery, with a 2.5%¹ increase expected in the second calendar quarter of 2021 after a 5.6%¹ rise in the first calendar quarter of the year. Vaccination rates have continued to rise over the summer, supporting an easing of containment measures and restrictions, and substantial government support remains in place. We expect the recovery in GDP to accelerate over the second half of the calendar year as the travel and hospitality sectors continue to recover. Growth in the industrial sector, in contrast, is expected to be limited by supply chain disruptions and capacity limits, including labour shortages. The unemployment rate fell to 7.5% in July 2021 from 8.1% in April 2021. Although job losses from April and May 2021 have been retraced, employment remains below pre-pandemic levels with remaining weakness heavily concentrated in high-contact service sectors. The Bank of Canada (BoC) is viewing recent spikes in year-over-year inflation growth as likely transitory, but reduced the pace of weekly asset purchases for a second time this year in July 2021 based on the improved growth outlook. The BoC is expected to begin raising interest rates in the second half of calendar 2022.

U.S.

The U.S. economic recovery has accelerated alongside a rapid early rollout of vaccines and large government stimulus spending. GDP grew 6.3%¹ in the first calendar quarter of 2021 and 6.5%¹ in the second calendar quarter of 2021 largely driven by a recovery in household spending on services as containment measures eased. While employment rose with 2.5 million jobs added from May to July 2021, a shortfall of 5.7 million jobs remains relative to pre-pandemic levels. The labour market recovery is expected to continue over the second half of calendar 2021 alongside further GDP gains as the travel and hospitality sectors that have been heavily impacted by the COVID-19 pandemic continue to recover. Consumer price growth has moved higher as the economy reopens, and used vehicle prices have soared as a result of surging demand and supply chain disruptions limiting new vehicle production. The Federal Reserve has been viewing the spike in inflation measures as transitory and remains committed to maintaining extraordinary policy support by keeping benchmark interest rates low until the labour market has recovered.

Europe

Euro area economies are reopening following an acceleration in vaccine distribution. As containment measures were eased, Euro area GDP rose 2.0% in the second calendar quarter of 2021 following small declines over the prior two calendar quarters. The U.K. economy had a stronger rebound in the spring, with an increase in GDP of 4.8% in the second calendar quarter of 2021 driven by a faster early vaccine rollout and declining virus case counts. While virus spread in the U.K. rose once again into the summer, hospitalization rates have remained relatively low and restrictions on economic activity have been rolled back. The economic recovery in both the Euro area and the U.K. is expected to continue over the second half of calendar 2021. Both the European Central Bank and the Bank of England are expected to hold policy interest rates through 2022.

Financial markets

Government bond yields remain historically low but are expected to increase alongside an improving economic backdrop and higher inflation expectations. Major equity market indices have continued to reach all-time highs, supported by the strong economic outlook, monetary policy stimulus, and massive government income support. Monetary policy is expected to remain accommodative for an extended period.

¹ Annualized rate

Regulatory environment

We continue to monitor and prepare for regulatory developments and changes in a manner that seeks to ensure compliance with new requirements while mitigating adverse business or financial impacts. Such impacts could result from new or amended laws and regulations and the expectations of those who enforce them. A high level summary of the key regulatory changes that have the potential to increase or decrease our costs and the complexity of our operations is included in the Legal and regulatory environment risk section of our 2020 Annual Report, as updated below. A summary of the additional regulatory changes and relief instituted by governments globally and by OSFI during 2020 in response to the COVID-19 pandemic is included in the Significant developments: COVID-19, Liquidity and funding risk and Capital management sections of our 2020 Annual Report, with updates provided in the Impact of COVID-19 pandemic, Liquidity and funding risk and Capital management sections of this Q3 2021 Report to Shareholders.

Global uncertainty

Significant uncertainty about the impacts of the COVID-19 pandemic, trade policy and geopolitical tensions continue to pose risks to the global economic outlook. In July 2021, the International Monetary Fund (IMF) projected global growth of 6.0% in 2021, unchanged from its April forecast, and noted upward forecast revisions for advanced economies and downward revisions for developing economies, largely reflecting pandemic developments, including uneven vaccine access and changes in policy support, which could impact the pace of the economic recovery. In addition, uncertainty remains regarding vaccine efficacy against new variants of COVID-19 and the potential impact of vaccine hesitancy. Trade policy continues to remain a source of global uncertainty as countries consider ways to incorporate climate policy into trade policy, such as the EU's recently proposed carbon tariff on imports, and as the U.K. continues to develop its post-Brexit international trade policies. Finally, global financial markets remain vulnerable to geopolitical tensions, such as those between the U.S. and China, many of which center around trade and technology, including recent cyberattacks. Our diversified business model, as well as our product and geographic diversification, continue to help mitigate the risks posed by global uncertainty.

For a discussion on risk factors, including our framework and activities to manage these risks and other regulatory developments which may affect our business and financial results, refer to the Significant developments: COVID-19 section, including the Impact of pandemic risk factor, and the Risk management – Top and emerging risks and Legal and regulatory environment risk sections of our 2020 Annual Report and the Impact of COVID-19 pandemic, Risk and Capital management sections of this Q3 2021 Report to Shareholders.

Impact of COVID-19 pandemic

On March 11, 2020, the World Health Organization declared the outbreak of a strain of novel coronavirus disease, COVID-19, a global pandemic. The breadth and depth of the impact of the COVID-19 pandemic on the global economy and financial markets has continued to evolve with disruptive effects in countries in which we operate and beyond, while also contributing to increased market volatility and changes to the macroeconomic environment. In addition, the COVID-19 pandemic has continued to affect our employees, clients and communities, with resultant impacts on our operations, financial results and present and future risks to our business.

Measures to contain the spread of COVID-19, including business closures, social distancing protocols, travel restrictions, school closures, quarantines, and restrictions on gatherings and events, have been widespread. These measures have had and continue to have extensive implications for the global economy, including the pace and magnitude of recovery, as well as on related market functions, unemployment rates, inflation, and fiscal and monetary policies. As the COVID-19 pandemic continues to evolve, including through the emergence and progression of new variants of COVID-19 in different regions, governments continue to adjust their response and approach to the pandemic. While rising vaccination rates have supported a substantial or full easing of containment measures in some regions, progress towards re-opening has been accompanied by resurgences in the spread of COVID-19 and the re-imposition of restrictions in other regions. Consequently, the extent of containment measures and progress towards reopening continues to vary and fluctuate across different regions. Despite positive vaccine developments, uncertainty remains regarding vaccine efficacy against new variants of COVID-19 as well as overall long-term effectiveness, the potential impact of vaccine hesitancy, the timing of vaccine rollouts to certain age-groups, and global vaccine supply and availability, including uneven vaccine access. All of these factors contribute to the uncertainty regarding the timing of a full recovery. Moreover, the COVID-19 pandemic, the containment measures and the phased reopening approach taken in many regions could have longer-term effects on economic and commercial activity and consumer behaviour after the COVID-19 pandemic recedes and containment measures are fully lifted. In conjunction with the COVID-19 pandemic containment measures, governments, regulatory bodies, central banks and private organizations around the globe have provided and continue to provide unprecedented relief programs and temporary measures to facilitate the continued operation of the global economy and financial system, all of which are intended to provide support to individuals and businesses. While some programs have come to an end, other programs remain in place or have continued to be developed in an effort to support the overall economy. We expect that these governments, regulatory bodies, central banks and private organizations will continue to assess the need for these programs and measures.

In addition to the broad impacts of the COVID-19 pandemic on our employees, clients, communities and operations, the COVID-19 pandemic has impacted and will continue to impact our financial results. Results across all of our business segments have been and continue to be impacted to varying degrees by downstream implications from changes in the macroeconomic environment, including lower interest rates, changes in consumer spending patterns, market volatility, fluctuations in credit spreads, as well as other impacts including changes in credit risk, increased client-driven volumes and changes in operating costs. Notwithstanding these challenges, our financial results and condition amid these challenges

demonstrate the resilience of our capital and liquidity positions, which have been bolstered by our position of strength at the time of entering this crisis and throughout fiscal 2020 and to date in fiscal 2021.

We are closely monitoring the potential continued effects and impacts of the COVID-19 pandemic. Given the uncertainty of the extent and duration of the COVID-19 pandemic and its impacts on the economy and society as a whole, as well as the timeline of the transition to a fully reopened economy, the future impact on our businesses and our financial results and condition remains uncertain.

For further details regarding the impact of the COVID-19 pandemic, including associated risks, relief programs, programs in support of funding and liquidity, and other government measures, refer to the Significant developments: COVID-19, including the Impact of pandemic risk factor, risk and Capital management sections of our 2020 Annual Report.

Relief programs

In response to the COVID-19 pandemic, several government programs have been developed to provide financial aid to individuals and businesses, which include wage replacement for individuals, wage subsidies and rent relief for businesses, and lending programs for businesses, which we are administering for our clients. To further support our clients in financial need, various temporary relief programs were launched beyond the available government programs.

A summary of RBC and government relief programs is included in the Significant developments: COVID-19 section of our 2020 Annual Report, with updates noted below.

RBC relief programs

During the second quarter of 2020, we announced the RBC Client Relief program which aimed to provide immediate and long-term relief for clients impacted by the COVID-19 pandemic. The RBC Client Relief program for the majority of our commercial and small business clients closed on June 30, 2020 and loan deferrals within the program closed for retail clients on September 30, 2020. Payment deferral periods for clients that participated in these programs largely concluded by the end of the second quarter of 2021, however we have assessed and will continue to assess the needs of each individual client and continue to provide support to clients on a case by case basis.

Government programs in response to the COVID-19 pandemic

In response to the COVID-19 pandemic, both the Canadian and U.S. federal governments established programs intended to support businesses experiencing cash flow challenges during this unprecedented time, through which financial institutions have facilitated and continue to facilitate the provision of financial relief. In Canada, these programs include the Canada Emergency Business Account (CEBA) and the Business Credit Availability Program (BCAP), which is comprised of the Export Development Canada (EDC) BCAP Guarantee, the Business Development Bank of Canada (BDC) Co-Lending Program, the BDC Mid-Market Financing Program, and the EDC Mid-Market Guarantee and Financing Program. In the U.S., the federal government has established the Paycheck Protection Program (PPP). There have been no significant changes to these programs since October 31, 2020, except as noted below:

- On March 22, 2021, the Canadian Federal government announced that the application deadline for the CEBA program had been extended from March 31, 2021 to June 30, 2021. The application window for the CEBA program closed on June 30, 2021.
- In January 2021, the U.S. Small Business Administration (SBA), in consultation with the U.S. Treasury Department, pursuant to the “Economic Aid to Hard-Hit Small Businesses, Nonprofits, and Venues Act” (Economic Aid Act) relaunched the PPP, extending it through March 31, 2021, and announced a number of updates to the PPP for current and future loans. The expanded program includes new categories of eligible expenses, including operating expenditures, property damage costs, supplier costs and worker protection expenditures, in addition to payroll costs, utilities and mortgage interest. Borrowers are also provided with additional flexibility, including the ability to set their covered period for forgivable expenditures to be any length between 8 and 24 weeks. Certain borrowers with existing PPP loans may qualify for a second draw loan and may be eligible for a supplemental increase to their first draw. On March 30, 2021, the “PPP Extension Act” was signed into law, extending the PPP for an additional two months to May 31, 2021, and providing an additional 30-day period for the SBA to process pending applications. The application window for the PPP closed on May 31, 2021.
- On January 26, 2021, the Canadian Federal government announced the BDC Highly Affected Sectors Credit Availability Program (HASCAP). Under this program, Canadian banks are able to provide low-interest loans ranging from \$25,000 to \$1 million to businesses that have been heavily impacted by COVID-19 to cover operational cash flow needs. Loans funded under this program are fully guaranteed by the BDC. The application deadline for this program has been extended from June 30, 2021 to December 31, 2021.
- On June 2, 2021, the BDC and EDC announced that the application deadlines for the BDC Co-Lending Program, BDC Mid-Market Financing Program, EDC BCAP Guarantee and EDC Mid-Market Guarantee and Financing Program have been extended from June 30, 2021 to December 31, 2021.

As at July 31, 2021, we have facilitated the administration of relief to more than 200,900 clients (April 30, 2021 – 194,000) who have enrolled in the Canadian federal government programs, with corresponding exposures of \$11.7 billion (April 30, 2021 – \$10.8 billion), of which \$10.9 billion (April 30, 2021 – \$10.2 billion) was funded. For further details, refer to Note 6 of our 2020 Annual Consolidated Financial Statements. As at July 31, 2021, we have provided \$3.3 billion (US\$2.6 billion) of funding (April 30, 2021 – \$6.4 billion, (US\$5.2 billion)) to 12,220 clients (April 30, 2021 – 20,341 clients) through the PPP.

Financial performance

Overview

Q3 2021 vs. Q3 2020

Net income of \$4,296 million was up \$1,095 million or 34% from a year ago. Diluted earnings per share (EPS) of \$2.97 was up \$0.77 or 35% and return on common equity (ROE) of 19.6% was up from 15.7% last year. Our Common Equity Tier 1 (CET1) ratio of 13.6% was up 160 bps from a year ago.

Our results reflected higher earnings across all of our business segments. Personal & Commercial Banking, Capital Markets and Wealth Management results reflect lower PCL in the current quarter, including releases of provisions on performing loans mainly driven by improvements in our credit quality and macroeconomic outlook, whereas the prior year reflected provisions on performing loans due to the evolving impact of the COVID-19 pandemic.

Q3 2021 vs. Q2 2021

Net income of \$4,296 million was up \$281 million or 7% from last quarter. Diluted EPS of \$2.97 was up \$0.21 or 8% and ROE of 19.6% was up from 19.4% in the prior quarter. Our CET1 ratio of 13.6% was up 80 bps from last quarter.

Our results reflected higher earnings in Personal & Commercial Banking, Capital Markets, Wealth Management and Insurance, partially offset by lower earnings in Investor & Treasury Services.

Q3 2021 vs. Q3 2020 (Nine months ended)

Net income of \$12,158 million was up \$3,967 million or 48% from the same period last year. Diluted EPS of \$8.39 was up \$2.79 or 50% and ROE of 19.2% was up from 13.6% in the prior year.

Our results reflected higher earnings in Personal & Commercial Banking, Capital Markets, Wealth Management and Insurance, partially offset by lower earnings in Investor & Treasury Services. The same period last year reflected elevated provisions on performing loans due to the impact of the COVID-19 pandemic, which unfavourably impacted results in Personal & Commercial Banking, Capital Markets and Wealth Management in the prior year.

For further details on our business segment results and CET1 ratio, refer to the Business segment results and Capital management sections, respectively.

Impact of foreign currency translation

The following table reflects the estimated impact of foreign currency translation on key income statement items:

	For the three months ended		For the nine months ended
	Q3 2021 vs. Q3 2020	Q3 2021 vs. Q2 2021	Q3 2021 vs. Q3 2020
(Millions of Canadian dollars, except per share amounts)			
Increase (decrease):			
Total revenue	\$ (347)	\$ (63)	\$ (777)
PCL	12	-	26
Non-interest expense	(249)	(46)	(555)
Income taxes	(20)	(3)	(45)
Net income	(90)	(14)	(203)
Impact on EPS			
Basic	\$ (0.06)	\$ (0.01)	\$ (0.14)
Diluted	(0.06)	(0.01)	(0.14)

The relevant average exchange rates that impact our business are shown in the following table:

	For the three months ended			For the nine months ended	
	July 31 2021	April 30 2021	July 31 2020	July 31 2021	July 31 2020
(Average foreign currency equivalent of C\$1.00) (1)					
U.S. dollar	0.812	0.798	0.737	0.796	0.740
British pound	0.581	0.577	0.585	0.577	0.579
Euro	0.678	0.669	0.648	0.663	0.663

(1) Average amounts are calculated using month-end spot rates for the period.

Total revenue

(Millions of Canadian dollars, except percentage amounts)	For the three months ended			For the nine months ended	
	July 31 2021	April 30 2021	July 31 2020	July 31 2021	July 31 2020
Interest and dividend income	\$ 6,997	\$ 6,898	\$ 7,956	\$ 21,131	\$ 27,420
Interest expense	1,945	2,044	2,817	6,190	11,595
Net interest income	5,052	4,854	5,139	14,941	15,825
NIM	1.51%	1.50%	1.49%	1.50%	1.56%
Insurance premiums, investment and fee income	1,754	536	2,212	4,099	4,403
Trading revenue	179	377	623	1,080	1,015
Investment management and custodial fees	1,830	1,711	1,489	5,244	4,524
Mutual fund revenue	1,095	1,014	915	3,109	2,751
Securities brokerage commissions	356	431	341	1,188	1,119
Service charges	465	460	430	1,383	1,386
Underwriting and other advisory fees	700	747	570	2,037	1,741
Foreign exchange revenue, other than trading	246	292	246	827	779
Card service revenue	278	281	259	831	758
Credit fees	412	368	296	1,112	960
Net gains on investment securities	8	82	11	125	67
Share of profit in joint ventures and associates	47	24	20	96	57
Other	334	441	369	1,245	704
Non-interest income	7,704	6,764	7,781	22,376	20,264
Total revenue	\$ 12,756	\$ 11,618	\$ 12,920	\$ 37,317	\$ 36,089
Additional trading information					
Net interest income	\$ 623	\$ 642	\$ 967	\$ 2,005	\$ 2,731
Non-interest income	179	377	623	1,080	1,015
Total trading revenue	\$ 802	\$ 1,019	\$ 1,590	\$ 3,085	\$ 3,746

Q3 2021 vs. Q3 2020

Total revenue decreased \$164 million or 1% from a year ago, mainly due to lower insurance premiums, investment and fee income (Insurance revenue) and trading revenue. Lower net interest income also contributed to the decrease. These factors were partially offset by higher investment management and custodial fees, mutual fund revenue, underwriting and other advisory fees, as well as credit fees. The impact of foreign exchange translation decreased total revenue by \$347 million.

Net interest income decreased \$87 million or 2%, largely due to lower trading revenue in Capital Markets and lower spreads in Canadian Banking and Wealth Management. The impact of foreign exchange translation also contributed to the decrease. These factors were partially offset by volume growth in Canadian Banking and Wealth Management, and higher funding and liquidity revenue in our Investor & Treasury Services business.

NIM was up 2 bps compared to last year, mainly due to our Investor & Treasury Services business which reflected lower average earning assets as the prior year saw a heightened impact from elevated enterprise liquidity, as well as higher funding and liquidity revenue, partially offset by lower spreads in Wealth Management largely driven by changes in average earning assets mix, including the impact of deposit growth.

Insurance revenue decreased \$458 million or 21%, primarily reflecting the change in fair value of investments backing policyholder liabilities, which is largely offset in PBCAE.

Trading revenue decreased \$444 million or 71%, mainly due to lower fixed income trading in the U.S. and Europe as the prior year benefitted from increased client activity amidst elevated market volatility. The prior year also included the reversal of loan underwriting markdowns impacting fixed income trading in the U.S. and Europe. Lower equity trading largely in the U.S. due to reduced client activity also contributed to the decrease.

Investment management and custodial fees increased \$341 million or 23%, mainly due to higher average fee-based client assets reflecting market appreciation and net sales.

Mutual fund revenue increased \$180 million or 20%, primarily due to higher average fee-based client assets reflecting market appreciation and net sales in Wealth Management, and higher average balances driving higher mutual fund distribution fees in Canadian Banking.

Underwriting and other advisory fees increased \$130 million or 23%, largely driven by higher M&A activity across most regions.

Credit fees increased \$116 million or 39%, largely attributable to higher loan syndication activity across most regions.

Q3 2021 vs. Q2 2021

Total revenue increased \$1,138 million or 10% from last quarter, mainly due to higher insurance revenue. Higher net interest income and investment management and custodial fees also contributed to the increase. These factors were partially offset by lower trading revenue and other revenue. The impact of foreign exchange translation decreased total revenue by \$63 million.

Net interest income increased \$198 million or 4%, mainly due to volume growth in Canadian Banking and Wealth Management, and the impact of three additional days in the current quarter. These factors were partially offset by lower spreads in Canadian Banking and Wealth Management.

Insurance revenue increased \$1,218 million, primarily reflecting the change in fair value of investments backing policyholder liabilities, higher group annuity sales and business growth in International Insurance, all of which are largely offset in PBCAE.

Trading revenue decreased \$198 million or 53%, mainly attributable to lower equity and fixed income trading revenue largely in the U.S. and Europe driven by reduced client activity.

Investment management and custodial fees increased \$119 million or 7%, mainly due to higher average fee-based client assets reflecting market appreciation and net sales.

Other revenue decreased \$107 million or 24%, primarily attributable to changes in the fair value of the hedges related to our U.S. share-based compensation plans, which was largely offset in Non-interest expense.

Q3 2021 vs. Q3 2020 (Nine months ended)

Total revenue increased \$1,228 million or 3% from the same period last year, primarily driven by higher investment management and custodial fees, other revenue and mutual fund revenue. Higher underwriting and other advisory fees and credit fees also contributed to the increase. These factors were partially offset by lower net interest income and insurance revenue. The impact of foreign exchange translation decreased total revenue by \$777 million.

Net interest income decreased \$884 million or 6%, largely due to lower spreads in Personal & Commercial Banking and Wealth Management, and lower trading revenue in Capital Markets. The impact of foreign exchange translation also contributed to the decrease. These factors were partially offset by volume growth in Canadian Banking and Wealth Management.

Insurance revenue decreased \$304 million or 7%, mainly reflecting the change in fair value of investments backing policyholder liabilities, which is largely offset in PBCAE.

Investment management and custodial fees increased \$720 million or 16%, largely driven by higher average fee-based client assets reflecting market appreciation and net sales, partially offset by the impact of foreign exchange translation.

Mutual fund revenue increased \$358 million or 13%, primarily due to higher average fee-based client assets reflecting market appreciation and net sales in Wealth Management, and higher average balances driving higher mutual fund distribution fees in Canadian Banking.

Underwriting and other advisory fees increased \$296 million or 17%, mainly due to higher M&A activity and higher equity and debt origination, all largely in the U.S. These factors were partially offset by the impact of foreign exchange translation.

Credit fees increased \$152 million or 16%, primarily driven by higher loan syndication activity in North America.

Other revenue increased \$541 million or 77%, largely attributable to changes in the fair value of the hedges related to our U.S. share-based compensation plans, which was largely offset in Non-interest expense, and the impact of economic hedges.

Provision for credit losses

Q3 2021 vs. Q3 2020

Total PCL decreased \$1,215 million from a year ago.

PCL on loans of \$(492) million decreased \$1,170 million, largely reflecting releases of provisions in the current quarter mainly driven by improvements in our credit quality and macroeconomic outlook as compared to provisions taken in the prior year due to the evolving impact of the COVID-19 pandemic. The PCL on loans ratio of (28) bps decreased 68 bps.

Q3 2021 vs. Q2 2021

Total PCL decreased \$444 million from last quarter.

PCL on loans of \$(492) million decreased \$409 million, primarily reflecting higher releases of provisions in the current quarter mainly driven by continued improvements in our credit quality and macroeconomic outlook. The PCL on loans ratio decreased 23 bps.

Q3 2021 vs. Q3 2020 (Nine months ended)

Total PCL decreased \$4,450 million from the same period last year.

PCL on loans of \$(454) million decreased \$4,287 million from the same period last year, primarily reflecting elevated provisions in the prior year due to the impact of the COVID-19 pandemic and releases in the current year driven by improvements in our macroeconomic and credit quality outlook. The PCL on loans ratio of (9) bps decreased 86 bps.

For further details on PCL, refer to Credit quality performance in the Credit risk section.

Insurance policyholder benefits, claims and acquisition expense (PBCAE)

Q3 2021 vs. Q3 2020

PBCAE decreased \$481 million or 27% from a year ago, primarily reflecting the change in fair value of investments backing policyholder liabilities, which is largely offset in revenue. The impact of new longevity reinsurance contracts, lower claims costs mainly in our travel-related and disability products, and actuarial adjustments also contributed to the decrease. These factors were partially offset by business growth in International Insurance.

Q3 2021 vs. Q2 2021

PBCAE increased \$1,155 million from last quarter, primarily reflecting the change in fair value of investments backing policyholder liabilities, higher group annuity sales and business growth in International Insurance, all of which are largely offset in revenue. These factors were partially offset by the impact of new longevity reinsurance contracts.

Q3 2021 vs. Q3 2020 (Nine months ended)

PBCAE decreased \$363 million or 11% from the same period last year, primarily reflecting the change in fair value of investments backing policyholder liabilities, which is largely offset in revenue. Lower claims costs mainly in our travel-related and disability products, and lower group annuity sales also contributed to the decrease. These factors were partially offset by business growth, primarily in longevity reinsurance.

Non-interest expense

(Millions of Canadian dollars, except percentage amounts)	For the three months ended			For the nine months ended	
	July 31 2021	April 30 2021	July 31 2020	July 31 2021	July 31 2020
Salaries	\$ 1,684	\$ 1,641	\$ 1,723	\$ 4,980	\$ 5,046
Variable compensation	1,816	1,874	1,653	5,494	4,669
Benefits and retention compensation	511	503	498	1,557	1,547
Share-based compensation	100	134	158	520	403
Human resources	4,111	4,152	4,032	12,551	11,665
Equipment	492	487	469	1,472	1,399
Occupancy	387	400	415	1,191	1,229
Communications	227	212	233	652	735
Professional fees	329	314	337	934	945
Amortization of other intangibles	320	318	325	957	943
Other	554	496	569	1,584	1,784
Non-interest expense	\$ 6,420	\$ 6,379	\$ 6,380	\$ 19,341	\$ 18,700
Efficiency ratio (1)	50.3%	54.9%	49.4%	51.8%	51.8%
Efficiency ratio adjusted (2)	52.3%	52.3%	53.5%	52.2%	52.6%

(1) Efficiency ratio is calculated as Non-interest expense divided by Total revenue.

(2) Measure has been adjusted by excluding the change in fair value of investments backing policyholder liabilities. This is a non-GAAP measure. For further details, refer to the Key performance and non-GAAP measures section.

Q3 2021 vs. Q3 2020

Non-interest expense remained relatively flat as higher variable compensation and higher technology and staff-related costs were largely offset by the impact of foreign exchange translation as well as the change in the fair value of our U.S. share-based compensation plans, which was largely offset in Other revenue. The prior year also reflected the impact of additional compensation for certain employees, primarily those client-facing amidst the COVID-19 pandemic.

Our efficiency ratio of 50.3% increased 90 bps from 49.4% last year. Excluding the change in fair value of investments backing policyholder liabilities, our efficiency ratio of 52.3% decreased 120 bps from 53.5% last year.

Q3 2021 vs. Q2 2021

Non-interest expense remained relatively flat. Higher technology and staff-related costs, a favourable sales tax adjustment in the prior quarter, and increased marketing and other discretionary spend were largely offset by the change in the fair value of our U.S. share-based compensation plans, which was largely offset in Other revenue, the impact of foreign exchange translation and lower variable compensation.

Our efficiency ratio of 50.3% decreased 460 bps from 54.9% last quarter. Excluding the change in fair value of investments backing policyholder liabilities, our efficiency ratio of 52.3% remained unchanged from last quarter.

Q3 2021 vs. Q3 2020 (Nine months ended)

Non-interest expense increased \$641 million or 3% from the same period last year, primarily attributable to higher variable compensation on improved results and the change in the fair value of our U.S. share-based compensation plans, which was largely offset in Other revenue. These factors were partially offset by the impact of foreign exchange translation.

Our efficiency ratio of 51.8% remained unchanged from last year. Excluding the change in fair value of investments backing policyholder liabilities, our efficiency ratio of 52.2% decreased 40 bps from 52.6% last year.

Efficiency ratio excluding the change in fair value of investments backing policyholder liabilities is a non-GAAP measure. For further details, including a reconciliation, refer to the Key performance and non-GAAP measures section.

Income taxes

(Millions of Canadian dollars, except percentage amounts)	For the three months ended			For the nine months ended	
	July 31 2021	April 30 2021	July 31 2020	July 31 2021	July 31 2020
Income taxes	\$ 1,276	\$ 1,171	\$ 879	\$ 3,485	\$ 2,052
Income before income taxes	5,572	5,186	4,080	15,643	10,243
Effective income tax rate	22.9%	22.6%	21.5%	22.3%	20.0%

Q3 2021 vs. Q3 2020

Income tax expense increased \$397 million or 45% from a year ago, primarily due to higher income before income taxes in the current quarter.

The effective income tax rate of 22.9% increased 140 bps, primarily due to the impact of changes in earnings mix.

Q3 2021 vs. Q2 2021

Income tax expense increased \$105 million or 9% from last quarter, primarily due to higher income before income taxes in the current quarter.

The effective income tax rate of 22.9% increased 30 bps, primarily due to the impact of changes in earnings mix.

Q3 2021 vs. Q3 2020 (Nine months ended)

Income tax expense increased \$1,433 million or 70% from the same period last year, primarily due to higher income before income taxes.

The effective income tax rate of 22.3% increased 230 bps, as the same period last year reflected a higher proportion of income from lower tax rate jurisdictions and tax exempt income relative to the decline in earnings experienced in the second quarter of 2020. Changes in earnings mix also contributed to the increase.

Business segment results**How we measure and report our business segments**

The key methodologies and assumptions used in our management reporting framework are periodically reviewed by management to ensure they remain valid. They remain unchanged from October 31, 2020.

For further details on our key methodologies and assumptions used in our management reporting framework, refer to the How we measure and report our business segments section of our 2020 Annual Report.

Key performance and non-GAAP measures**Performance measures****Return on common equity**

We measure and evaluate the performance of our consolidated operations and each business segment using a number of financial metrics, such as net income and ROE. We use ROE, at both the consolidated and business segment levels, as a measure of return on total capital invested in our business. Management views the business segment ROE measure as a useful measure for supporting investment and resource allocation decisions because it adjusts for certain items that may affect comparability between business segments and certain competitors. ROE does not have a standardized meaning under GAAP and may not be comparable to similar measures disclosed by other financial institutions. For further details, refer to the Key performance and non-GAAP measures section of our 2020 Annual Report.

The following table provides a summary of our ROE calculations:

(Millions of Canadian dollars, except percentage amounts)	For the three months ended								April 30 2021	July 31 2020	
	July 31 2021							Total			Total
	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets	Corporate Support	Total				
Net income available to common shareholders	\$ 2,093	\$ 728	\$ 233	\$ 86	\$ 1,114	\$ (17)	\$ 4,237	\$ 3,938	\$ 3,132		
Total average common equity (1), (2)	24,750	15,950	2,350	3,050	22,400	17,300	85,800	83,450	79,350		
ROE (3)	33.6%	18.1%	39.5%	11.1%	19.7%	n.m.	19.6%	19.4%	15.7%		

(Millions of Canadian dollars, except percentage amounts)	For the nine months ended								July 31 2020
	July 31 2021							Total	
	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets	Corporate Support	Total		
Net income available to common shareholders	\$ 5,752	\$ 2,041	\$ 617	\$ 324	\$ 3,215	\$ 13	\$ 11,962	\$ 7,991	
Total average common equity (1), (2)	24,100	16,100	2,350	3,200	22,600	14,950	83,300	78,750	
ROE (3)	31.9%	17.0%	35.4%	13.6%	19.0%	n.m.	19.2%	13.6%	

(1) Total average common equity represents rounded figures.

(2) The amounts for the segments are referred to as attributed capital.

(3) ROE is based on actual balances of average common equity before rounding.
n.m. not meaningful

Non-GAAP measures

We believe that certain non-GAAP measures described below are more reflective of our ongoing operating results and provide readers with a better understanding of management's perspective on our performance. These measures enhance the comparability of our financial performance for the three and nine months ended July 31, 2021 with the corresponding periods in the prior year and the three months ended April 30, 2021. Non-GAAP measures do not have a standardized meaning under GAAP and may not be comparable to similar measures disclosed by other financial institutions.

The following discussion describes the non-GAAP measures we use in evaluating our operating results.

Efficiency ratio excluding the change in fair value of investments in Insurance

Our efficiency ratio is impacted by the change in fair value of investments backing policyholder liabilities, which is reported in revenue and largely offset in PBCAE.

The following table provides calculations of our consolidated efficiency ratio excluding the change in fair value of investments backing policyholder liabilities:

(Millions of Canadian dollars, except percentage amounts)	For the three months ended									
	July 31 2021			April 30 2021			July 31 2020			
	Item excluded			Item excluded			Item excluded			
	As reported	Change in fair value of investments backing policyholder liabilities	Adjusted	As reported	Change in fair value of investments backing policyholder liabilities	Adjusted	As reported	Change in fair value of investments backing policyholder liabilities	Adjusted	
Total revenue	\$ 12,756	\$ (475)	\$ 12,281	\$ 11,618	\$ 568	\$ 12,186	\$ 12,920	\$ (997)	\$ 11,923	
Non-interest expense	6,420	–	6,420	6,379	–	6,379	6,380	–	6,380	
Efficiency ratio	50.3%		52.3%	54.9%		52.3%	49.4%		53.5%	

(Millions of Canadian dollars, except percentage amounts)	For the nine months ended								
	July 31 2021			July 31 2020					
	Item excluded			Item excluded					
	As reported	Change in fair value of investments backing policyholder liabilities	Adjusted	As reported	Change in fair value of investments backing policyholder liabilities	Adjusted			
Total revenue	\$ 37,317	\$ (253)	\$ 37,064	\$ 36,089	\$ (512)	\$ 35,577			
Non-interest expense	19,341	–	19,341	18,700	–	18,700			
Efficiency ratio	51.8%		52.2%	51.8%		52.6%			

Personal & Commercial Banking

(Millions of Canadian dollars, except percentage amounts and as otherwise noted)	As at or for the three months ended			As at or for the nine months ended	
	July 31 2021	April 30 2021	July 31 2020	July 31 2021	July 31 2020
Net interest income	\$ 3,206	\$ 3,085	\$ 3,079	\$ 9,452	\$ 9,454
Non-interest income	1,445	1,442	1,269	4,289	3,904
Total revenue	4,651	4,527	4,348	13,741	13,358
PCL on performing assets	(341)	(166)	247	(567)	1,683
PCL on impaired assets	162	201	280	588	892
PCL	(179)	35	527	21	2,575
Non-interest expense	1,998	1,915	1,985	5,891	5,916
Income before income taxes	2,832	2,577	1,836	7,829	4,867
Net income	\$ 2,113	\$ 1,908	\$ 1,367	\$ 5,814	\$ 3,585
Revenue by business					
Canadian Banking	\$ 4,463	\$ 4,341	\$ 4,135	\$ 13,156	\$ 12,673
Caribbean & U.S. Banking	188	186	213	585	685
Selected balance sheet and other information					
ROE	33.6%	31.8%	23.4%	31.9%	20.3%
NIM	2.52%	2.56%	2.60%	2.55%	2.70%
Efficiency ratio	43.0%	42.3%	45.7%	42.9%	44.3%
Operating leverage	6.3%	4.5%	(5.7)%	3.3%	(2.2)%
Average total earning assets, net	\$ 505,600	\$ 493,400	\$ 470,300	\$ 496,300	\$ 467,400
Average loans and acceptances, net	509,300	497,400	473,400	500,100	470,500
Average deposits	507,600	495,000	465,100	497,600	435,900
AUA ⁽¹⁾	356,100	339,000	293,100	356,100	293,100
Average AUA	349,100	334,400	286,000	333,100	284,200
PCL on impaired loans as a % of average net loans and acceptances	0.13%	0.17%	0.24%	0.16%	0.25%
Other selected information – Canadian Banking					
Net income	\$ 2,024	\$ 1,872	\$ 1,330	\$ 5,650	\$ 3,603
NIM	2.51%	2.55%	2.58%	2.53%	2.66%
Efficiency ratio	41.4%	40.8%	43.9%	41.4%	42.6%
Operating leverage	6.1%	4.7%	(5.5)%	3.0%	(2.2)%

(1) AUA represents period-end spot balances and includes securitized residential mortgages and credit card loans as at July 31, 2021 of \$14.6 billion and \$2.9 billion, respectively (April 30, 2021 – \$15.0 billion and \$2.9 billion; July 31, 2020 – \$16.2 billion and \$6.7 billion).

Financial performance

Q3 2021 vs. Q3 2020

Net income increased \$746 million or 55% from a year ago, primarily attributable to lower PCL. Average volume growth of 9% in Canadian Banking and higher average balances driving higher mutual fund distribution fees also contributed to the increase. These factors were partially offset by lower spreads in Canadian Banking.

Total revenue increased \$303 million or 7%.

Canadian Banking revenue increased \$328 million or 8%, primarily due to average volume growth of 10% in deposits and 8% in loans and higher average balances driving higher mutual fund distribution fees. Increased client activity contributed to higher service charges and foreign exchange revenue. These factors were partially offset by lower spreads.

Caribbean & U.S. Banking revenue decreased \$25 million or 12%, primarily reflecting the impact of foreign exchange translation and the sale of our Eastern Caribbean operations, which closed in the second quarter of 2021.

Net interest margin was down 8 bps, primarily due to the impact of lower interest rates.

PCL decreased \$706 million, primarily reflecting releases of provisions on performing loans in the current quarter mainly driven by improvements in our credit quality and macroeconomic outlook as compared to provisions taken in the prior year due to the evolving impact of the COVID-19 pandemic. Lower provisions on impaired loans also contributed to the decrease, resulting in a decrease of 11 bps in the PCL on impaired loans ratio. For further details, refer to Credit quality performance in the Credit risk section.

Non-interest expense increased \$13 million or 1%, mainly attributable to higher staff-related costs, partially offset by the prior year impact of additional compensation for certain employees, primarily those client-facing amidst the COVID-19 pandemic.

Q3 2021 vs. Q2 2021

Net income increased \$205 million or 11% from last quarter, primarily due to lower PCL. The impact of three additional days in the current quarter and average volume growth of 2% in Canadian Banking also contributed to the increase. These factors were partially offset by lower spreads and higher staff-related costs.

Net interest margin was down 4 bps, primarily due to the impact of competitive pricing pressures in the continued low interest rate environment and changes in product mix.

Q3 2021 vs. Q3 2020 (Nine months ended)

Net income increased \$2,229 million or 62% from the same period last year, primarily attributable to lower PCL. Average volume growth of 10% in Canadian Banking was largely offset by lower spreads.

Total revenue increased \$383 million or 3%, largely due to average volume growth in Canadian Banking of 15% in deposits and 7% in loans. Higher average balances driving higher mutual fund distribution fees and higher securities brokerage commissions, card service revenue and foreign exchange revenue reflecting increased client activity also contributed to the increase. These factors were partially offset by lower spreads due to the low interest rate environment.

PCL decreased \$2,554 million, as the same period last year reflected elevated provisions on performing loans due to the impact of the COVID-19 pandemic as compared to releases in the current year primarily driven by improvements in our macroeconomic and credit quality outlook. Lower provisions on impaired loans also contributed to the decrease, resulting in a decrease of 9 bps in the PCL on impaired loans ratio. For further details, refer to Credit quality performance in the Credit risk section.

Non-interest expense decreased \$25 million as higher staff-related costs were more than offset by the prior year impact of additional compensation for certain employees, primarily those client-facing amidst the COVID-19 pandemic, lower marketing and other discretionary spend as well as other operating costs.

Wealth Management

(Millions of Canadian dollars, except number of, percentage amounts and as otherwise noted)	As at or for the three months ended			As at or for the nine months ended	
	July 31 2021	April 30 2021	July 31 2020	July 31 2021	July 31 2020
Net interest income	\$ 682	\$ 666	\$ 699	\$ 2,014	\$ 2,174
Non-interest income	2,742	2,728	2,465	8,191	6,978
Total revenue	3,424	3,394	3,164	10,205	9,152
PCL on performing assets	(19)	(5)	31	(26)	106
PCL on impaired assets	(2)	3	43	(26)	57
PCL	(21)	(2)	74	(52)	163
Non-interest expense	2,493	2,495	2,361	7,551	6,900
Income before income taxes	952	901	729	2,706	2,089
Net income	\$ 738	\$ 691	\$ 562	\$ 2,078	\$ 1,609
Revenue by business					
Canadian Wealth Management	\$ 1,012	\$ 964	\$ 806	\$ 2,876	\$ 2,484
U.S. Wealth Management (including City National)	1,643	1,700	1,659	5,045	4,667
U.S. Wealth Management (including City National) (US\$ millions)	1,334	1,358	1,222	4,018	3,459
Global Asset Management	692	628	606	2,015	1,700
International Wealth Management	77	102	93	269	301
Selected balance sheet and other information					
ROE	18.1%	17.2%	13.3%	17.0%	13.1%
NIM	2.25%	2.38%	2.58%	2.32%	2.89%
Pre-tax margin (1)	27.8%	26.5%	23.0%	26.5%	22.8%
Number of advisors (2)	5,522	5,459	5,376	5,522	5,376
Average total earning assets, net	\$ 120,200	\$ 114,800	\$ 107,800	\$ 116,000	\$ 100,400
Average loans and acceptances, net	83,800	83,100	81,300	82,900	75,300
Average deposits	142,800	139,700	131,100	140,100	118,600
AUA (3)	1,292,800	1,227,000	1,097,100	1,292,800	1,097,100
U.S. Wealth Management (including City National) (3)	690,400	651,300	584,500	690,400	584,500
U.S. Wealth Management (including City National) (US\$ millions) (3)	553,300	529,800	436,400	553,300	436,400
AUM (3)	975,600	922,300	834,100	975,600	834,100
Average AUA	1,265,200	1,218,200	1,082,000	1,218,200	1,073,300
Average AUM	956,300	910,400	815,000	916,900	788,700
PCL on impaired loans as a % of average net loans and acceptances	(0.01)%	0.02%	0.21%	(0.04)%	0.10%

Estimated impact of U.S. dollar, British pound and Euro translation on key income statement items

(Millions of Canadian dollars, except percentage amounts)

	For the three months ended		For the nine months ended
	Q3 2021 vs. Q3 2020	Q3 2021 vs. Q2 2021	Q3 2021 vs. Q3 2020
Increase (decrease):			
Total revenue	\$ (175)	\$ (30)	\$ (396)
PCL	2	-	3
Non-interest expense	(142)	(25)	(322)
Net income	(28)	(4)	(63)
Percentage change in average U.S. dollar equivalent of C\$1.00	10%	2%	8%
Percentage change in average British pound equivalent of C\$1.00	(1)%	1%	-%
Percentage change in average Euro equivalent of C\$1.00	5%	1%	-%

(1) Pre-tax margin is defined as Income before income taxes divided by Total revenue.

(2) Represents client-facing advisors across all of our Wealth Management businesses.

(3) Represents period-end spot balances.

Financial performance

Q3 2021 vs. Q3 2020

Net income increased \$176 million or 31% from a year ago, mainly due to higher average fee-based client assets. Average volume growth and lower PCL also contributed to the increase. These factors were partially offset by higher variable compensation as well as the impact of lower spreads.

Total revenue increased \$260 million or 8%.

Canadian Wealth Management revenue increased \$206 million or 26%, primarily due to higher average fee-based client assets reflecting market appreciation and net sales.

U.S. Wealth Management (including City National) revenue decreased \$16 million or 1%, reflecting the impact of foreign exchange translation. In U.S. dollars, revenue increased \$112 million or 9%, primarily attributable to higher average fee-based client assets reflecting market appreciation and net sales and average volume growth of 12% in loans and 22% in deposits. These factors were partially offset by changes in the fair value of the hedges related to our U.S. share-based compensation plans, which was largely offset in Non-interest expense, as well as the impact of lower spreads on net interest income.

Global Asset Management revenue increased \$86 million or 14%, largely due to higher average fee-based client assets reflecting market appreciation and net sales.

International Wealth Management revenue decreased \$16 million or 17%, mainly attributable to a decline in net interest income reflecting lower spreads.

PCL decreased \$95 million in U.S. Wealth Management (including City National), largely reflecting releases of provisions on performing loans in the current quarter driven by improvements in our credit quality and macroeconomic outlook, as compared to provisions taken in the prior year due to the evolving impact of the COVID-19 pandemic. Provisions on impaired loans in the prior year as compared to recoveries in the current quarter also contributed to the decrease, resulting in a decrease of 22 bps in the PCL on impaired loans ratio. For further details, refer to Credit quality performance in the Credit risk section.

Non-interest expense increased \$132 million or 6%, primarily due to higher variable compensation commensurate with increased revenue. Higher staff-related costs in support of business growth and higher technology-related costs also contributed to the increase. These factors were partially offset by the impact of foreign exchange translation and changes in the fair value of our U.S. share-based compensation plans, which was largely offset in revenue.

Q3 2021 vs. Q2 2021

Net income increased \$47 million or 7% from last quarter, mainly due to higher average fee-based client assets reflecting market appreciation and net sales, and average volume growth. These factors were partially offset by higher variable compensation, lower transactional revenue mainly driven by client activity, and lower spreads.

Q3 2021 vs. Q3 2020 (Nine months ended)

Net income increased \$469 million or 29% from the same period last year, primarily due to higher average fee-based client assets and average volume growth. Lower PCL also contributed to the increase. These factors were partially offset by higher variable compensation and the impact of lower interest rates.

Total revenue increased \$1,053 million or 12%, mainly due to higher average fee-based client assets reflecting market appreciation and net sales, and average volume growth of 10% in loans and 18% in deposits. Changes in the fair value of the hedges related to our U.S. share-based compensation plans, which was largely offset in Non-interest expense, also contributed to the increase. These factors were partially offset by the impact of lower interest rates on net interest income and foreign exchange translation.

PCL decreased \$215 million in U.S. Wealth Management (including City National), as the same period last year reflected elevated provisions on performing loans due to the impact of the COVID-19 pandemic as compared to releases in the current year driven by improvements in our macroeconomic and credit quality outlook. Provisions on impaired loans in the same period last year as compared to recoveries in the current year also contributed to the decrease, resulting in a decrease of 14 bps in the PCL on impaired loans ratio. For further details, refer to Credit quality performance in the Credit risk section.

Non-interest expense increased \$651 million or 9%, primarily due to higher variable compensation commensurate with increased revenue and changes in the fair value of our U.S. share-based compensation plans, which was largely offset in revenue. These factors were partially offset by the impact of foreign exchange translation.

Insurance

(Millions of Canadian dollars, except percentage amounts and as otherwise noted)	As at or for the three months ended			As at or the nine months ended	
	July 31 2021	April 30 2021	July 31 2020	July 31 2021	July 31 2020
Non-interest income					
Net earned premiums	\$ 1,094	\$ 929	\$ 974	\$ 3,271	\$ 3,281
Investment income, gains/(losses) on assets supporting insurance policyholder liabilities (1)	613	(432)	1,196	705	1,009
Fee income	47	39	42	123	113
Total revenue	1,754	536	2,212	4,099	4,403
PCL	–	–	–	–	1
Insurance policyholder benefits and claims (1)	1,218	59	1,715	2,608	2,993
Insurance policyholder acquisition expense	86	90	70	251	229
Non-interest expense	155	140	140	444	441
Income before income taxes	295	247	287	796	739
Net income	\$ 234	\$ 187	\$ 216	\$ 622	\$ 577
Revenue by business					
Canadian Insurance	\$ 1,136	\$ (172)	\$ 1,636	\$ 2,121	\$ 2,675
International Insurance	618	708	576	1,978	1,728
Selected balances and other information					
ROE	39.5%	32.1%	35.9%	35.4%	33.9%
Premiums and deposits (2)	\$ 1,321	\$ 1,161	\$ 1,131	\$ 3,926	\$ 3,821
Fair value changes on investments backing policyholder liabilities (1)	475	(568)	997	253	512

(1) Includes unrealized gains and losses on investments backing policyholder liabilities attributable to fluctuation of assets designated as FVTPL. The investments which support actuarial liabilities are predominantly fixed income assets designated as FVTPL. Consequently, changes in the fair values of these assets are recorded in Insurance premiums, investment and fee income in the Consolidated Statements of Income and are largely offset by changes in the fair value of the actuarial liabilities, the impact of which is reflected in PBCAE.

(2) Premiums and deposits include premiums on risk-based insurance and annuity products, and individual and group segregated fund deposits, consistent with insurance industry practices.

Financial performance

Q3 2021 vs. Q3 2020

Net income increased \$18 million or 8% from a year ago, primarily due to the impact of new longevity reinsurance contracts, lower claims costs and the favourable impact of actuarial adjustments. These factors were partially offset by the impact of realized investment gains in the prior year.

Total revenue decreased \$458 million or 21%.

Canadian Insurance revenue decreased \$500 million or 31%, primarily reflecting the change in fair value of investments backing policyholder liabilities, which is largely offset in PBCAE as indicated below. The impact of realized investment gains in the prior year also contributed to the decrease.

International Insurance revenue increased \$42 million or 7%, mainly due to business growth in longevity reinsurance. This was partially offset by the change in fair value of investments backing policyholder liabilities, which is largely offset in PBCAE as indicated below.

PBCAE decreased \$481 million or 27%, primarily reflecting the change in fair value of investments backing policyholder liabilities, which is largely offset in revenue. The impact of new longevity reinsurance contracts, lower claims costs mainly in our travel-related and disability products, and actuarial adjustments also contributed to the decrease. These factors were partially offset by business growth in International Insurance.

Non-interest expense increased \$15 million or 11%, largely reflecting higher legal costs as well as costs associated with ongoing efficiency initiatives.

Q3 2021 vs. Q2 2021

Net income increased \$47 million or 25% from last quarter, primarily due to higher new longevity reinsurance contracts.

Q3 2021 vs. Q3 2020 (Nine months ended)

Net income increased \$45 million or 8% from the same period last year, mainly due to lower claims costs, partially offset by the impact of realized investment gains in the prior period.

Total revenue decreased \$304 million or 7%, primarily reflecting the change in fair value of investments backing policyholder liabilities and lower group annuity sales, both which are largely offset in PBCAE as indicated below. The impact of realized investment gains in the prior period also contributed to the decrease. These factors were partially offset by business growth primarily in longevity reinsurance as well as Canadian life and group insurance products.

PBCAE decreased \$363 million or 11%, primarily reflecting the change in fair value of investments backing policyholder liabilities, which is largely offset in revenue. Lower claims costs mainly in our travel-related and disability products, and lower group annuity sales also contributed to the decrease. These factors were partially offset by business growth, primarily in longevity reinsurance.

Non-interest expense increased \$3 million or 1%, as higher legal costs were largely offset by the benefit of ongoing efficiency initiatives.

Investor & Treasury Services

(Millions of Canadian dollars, except percentage amounts and as otherwise noted)	As at or for the three months ended			As at or for the nine months ended	
	July 31 2021	April 30 2021	July 31 2020	July 31 2021	July 31 2020
Net interest income	\$ 127	\$ 87	\$ 89	\$ 305	\$ 221
Non-interest income	390	447	395	1,311	1,569
Total revenue	517	534	484	1,616	1,790
PCL on performing assets	(3)	(2)	(4)	(7)	10
PCL on impaired assets	–	–	–	–	–
PCL	(3)	(2)	(4)	(7)	10
Non-interest expense	401	375	388	1,177	1,182
Income before income taxes	119	161	100	446	598
Net income	\$ 88	\$ 120	\$ 76	\$ 331	\$ 445
Selected balance sheet and other information					
ROE	11.1%	14.3%	8.4%	13.6%	17.9%
Average deposits	\$ 221,100	\$ 220,400	\$ 195,700	\$ 215,200	\$ 188,300
Average client deposits	64,600	64,000	65,800	63,900	62,800
Average wholesale funding deposits	156,500	156,400	129,900	151,300	125,500
AUA ⁽¹⁾	4,704,400	4,530,100	4,468,100	4,704,400	4,468,100
Average AUA	4,584,300	4,579,400	4,375,800	4,597,700	4,318,400

(1) Represents period-end spot balances

Financial performance

Q3 2021 vs. Q3 2020

Net income increased \$12 million or 16% from a year ago, primarily driven by higher funding and liquidity revenue, partially offset by lower client deposit revenue and higher technology-related costs.

Total revenue increased \$33 million or 7%, primarily due to higher funding and liquidity revenue as the prior year reflected unfavourable impacts from interest rate movements and a heightened impact from elevated enterprise liquidity. This was partially offset by lower client deposit revenue largely driven by margin compression.

Non-interest expense increased \$13 million or 3%, largely attributable to higher technology-related costs.

Q3 2021 vs. Q2 2021

Net income decreased \$32 million or 27% from last quarter, mainly driven by lower funding and liquidity revenue reflecting lower gains from the disposition of investment securities, higher technology-related costs, and a favourable sales tax adjustment in the prior quarter.

Q3 2021 vs. Q3 2020 (Nine months ended)

Net income decreased \$114 million or 26% from the same period last year, largely driven by lower revenue from funding and liquidity and client deposits.

Total revenue decreased \$174 million or 10%, mainly due to lower funding and liquidity revenue reflecting net favourable impacts from market volatility and interest rate movements in the same period last year as well as the impact of lower interest rates, partially offset by a heightened impact from elevated enterprise liquidity in the same period last year. Lower client deposit revenue mainly driven by lower interest rates also contributed to the decrease.

Non-interest expense remained relatively flat.

Capital Markets

(Millions of Canadian dollars, except percentage amounts and as otherwise noted)	As at or for the three months ended			As at or for the nine months ended	
	July 31 2021	April 30 2021	July 31 2020	July 31 2021	July 31 2020
Net interest income (1)	\$ 1,122	\$ 1,121	\$ 1,335	\$ 3,442	\$ 3,952
Non-interest income (1)	1,341	1,597	1,413	4,447	3,657
Total revenue (1)	2,463	2,718	2,748	7,889	7,609
PCL on performing assets	(326)	(98)	12	(465)	753
PCL on impaired assets	(11)	(29)	66	(22)	421
PCL	(337)	(127)	78	(487)	1,174
Non-interest expense	1,363	1,468	1,471	4,272	4,197
Income before income taxes	1,437	1,377	1,199	4,104	2,238
Net income	\$ 1,129	\$ 1,071	\$ 949	\$ 3,267	\$ 1,936
Revenue by business					
Corporate and Investment Banking	\$ 1,289	\$ 1,197	\$ 1,080	\$ 3,598	\$ 2,943
Global Markets	1,232	1,562	1,774	4,420	4,918
Other	(58)	(41)	(106)	(129)	(252)
Selected balance sheet and other information					
ROE	19.7%	18.9%	15.7%	19.0%	10.8%
Average total assets	\$ 685,600	\$ 694,600	\$ 777,400	\$ 707,900	\$ 771,000
Average trading securities	120,100	120,900	102,700	122,100	108,900
Average loans and acceptances, net	98,200	97,300	116,400	97,900	111,100
Average deposits	74,100	72,600	77,200	73,500	77,700
PCL on impaired loans as a % of average net loans and acceptances	(0.07)%	(0.13)%	0.25%	(0.04)%	0.49%

Estimated impact of U.S. dollar, British pound and Euro translation on key income statement items

(Millions of Canadian dollars, except percentage amounts)

	For the three months ended		For the nine months ended
	Q3 2021 vs. Q3 2020	Q3 2021 vs. Q2 2021	Q3 2021 vs. Q3 2020
<i>Increase (decrease):</i>			
Total revenue	\$ (145)	\$ (26)	\$ (342)
PCL	9	–	23
Non-interest expense	(78)	(15)	(181)
Net income	(62)	(9)	(151)
Percentage change in average U.S. dollar equivalent of C\$1.00	10%	2%	8%
Percentage change in average British pound equivalent of C\$1.00	(1)%	1%	–%
Percentage change in average Euro equivalent of C\$1.00	5%	1%	–%

(1) The taxable equivalent basis (teb) adjustment for the three months ended July 31, 2021 was \$130 million (April 30, 2021 – \$135 million; July 31, 2020 – \$126 million) and for the nine months ended July 31, 2021 was \$393 million (July 31, 2020 – \$386 million). For further discussion, refer to the How we measure and report our business segments section of our 2020 Annual Report.

Financial performance

Q3 2021 vs. Q3 2020

Net income increased \$180 million or 19% from a year ago, primarily driven by lower PCL and higher revenue in Corporate and Investment Banking. These factors were partially offset by lower revenue in Global Markets.

Total revenue decreased \$285 million or 10%.

Corporate and Investment Banking revenue increased \$209 million or 19%, largely driven by higher loan syndication and M&A activity across most regions. These factors were partially offset by lower fixed income trading revenue in the U.S. and Europe as the prior year included the reversal of loan underwriting markdowns reflecting the improvement in market conditions in that quarter.

Global Markets revenue decreased \$542 million or 31%, largely driven by lower fixed income trading revenue across all regions as the prior year benefitted from increased client activity amidst elevated market volatility. Lower equity trading revenue largely in the U.S. due to reduced client activity also contributed to the decrease.

Other revenue improved \$48 million, mainly reflecting lower residual funding costs.

PCL decreased \$415 million, largely due to releases of provisions on performing loans in the current quarter mainly driven by improvements in our credit quality and macroeconomic outlook. Recoveries on impaired loans in the real estate and related sector in the current quarter as compared to provisions taken in the oil and gas and real estate and related sectors in the prior year also contributed to the decrease, resulting in a decrease of 32 bps in the PCL on impaired loans ratio. For further details, refer to Credit quality performance in the Credit risk section.

Non-interest expense decreased \$108 million or 7%, primarily due to the impact of foreign exchange translation and lower compensation on decreased revenue. These factors were partially offset by higher technology-related costs.

Q3 2021 vs. Q2 2021

Net income increased \$58 million or 5% from last quarter mainly due to lower PCL and lower compensation on decreased revenue. These factors were partially offset by lower equity and fixed income trading revenue across most regions driven by reduced client activity.

Q3 2021 vs. Q3 2020 (Nine months ended)

Net income increased \$1,331 million or 69% from the same period last year, primarily due to lower PCL and higher revenue in Corporate and Investment Banking. These factors were partially offset by higher taxes reflecting an increase in the proportion of earnings from higher tax rate jurisdictions, lower revenue in Global Markets, higher compensation on improved results, and the impact of foreign exchange translation.

Total revenue increased \$280 million or 4%, mainly due to higher equity trading revenue across most regions, higher loan syndication activity in North America, as well as higher M&A activity and higher equity and debt origination, all largely in the U.S. The impact of residual funding costs and gains from the disposition of certain investment securities also contributed to the increase. These factors were partially offset by lower fixed income trading revenue across all regions due to reduced client activity and the impact of foreign exchange translation.

PCL decreased \$1,661 million, as the same period last year reflected elevated provisions on performing loans due to the impact of the COVID-19 pandemic as compared to releases in the current year primarily driven by improvements in our macroeconomic and credit quality outlook. Provisions on impaired loans in the same period last year as compared to recoveries in a few sectors in the current year, including the oil and gas sector, also contributed to the decrease, resulting in a decrease of 53 bps in the PCL on impaired loans ratio. For further details, refer to Credit quality performance in the Credit risk section.

Non-interest expense increased \$75 million or 2%, mainly driven by higher compensation on improved results, partially offset by the impact of foreign exchange translation.

Corporate Support

(Millions of Canadian dollars)	For the three months ended			For the nine months ended	
	July 31 2021	April 30 2021	July 31 2020	July 31 2021	July 31 2020
Net interest income (loss) (1)	\$ (85)	\$ (105)	\$ (63)	\$ (272)	\$ 24
Non-interest income (loss) (1)	32	14	27	39	(247)
Total revenue (1)	(53)	(91)	(36)	(233)	(223)
PCL	–	–	–	(1)	1
Non-interest expense	10	(14)	35	6	64
Income (loss) before income taxes (1)	(63)	(77)	(71)	(238)	(288)
Income taxes (recoveries) (1)	(57)	(115)	(102)	(284)	(327)
Net income (loss)	\$ (6)	\$ 38	\$ 31	\$ 46	\$ 39

(1) Teb adjusted.

Due to the nature of activities and consolidation adjustments reported in this segment, we believe that a comparative period analysis is not relevant. The following identifies material items affecting the reported results in each period.

Total revenue and Income taxes (recoveries) in each period in Corporate Support include the deduction of the teb adjustments related to the gross-up of income from Canadian taxable corporate dividends and the U.S. tax credit investment business recorded in Capital Markets. The amount deducted from revenue was offset by an equivalent increase in Income taxes (recoveries).

The teb amount for the three months ended July 31, 2021 was \$130 million, compared to \$135 million in the prior quarter and \$126 million in the same quarter last year. The teb amount for the nine months ended July 31, 2021 was \$393 million, compared to \$386 million in the same period last year.

The following identifies the material items, other than the teb impacts noted previously, affecting the reported results in each period.

Q3 2021

Net loss was \$6 million, primarily due to net unfavourable tax adjustments, largely offset by asset/liability management activities and residual unallocated items.

Q2 2021

Net income was \$38 million, primarily due to asset/liability management activities.

Q3 2020

Net income was \$31 million, primarily due to asset/liability management activities, partially offset by net unfavourable tax adjustments and residual unallocated costs.

Q3 2021 (Nine months ended)

Net income was \$46 million, mainly due to asset/liability management activities and residual unallocated items, partially offset by net unfavourable tax adjustments.

Q3 2020 (Nine months ended)

Net income was \$39 million, mainly due to asset/liability management activities, partially offset by net unfavourable tax adjustments and residual unallocated costs.

Quarterly results and trend analysis

Our quarterly results are impacted by a number of trends and recurring factors, which include seasonality of certain businesses, general economic and market conditions, and fluctuations in the Canadian dollar relative to other currencies. The following table summarizes our results for the last eight quarters (the period):

Quarterly results ⁽¹⁾

	2021				2020			2019
	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4
(Millions of Canadian dollars, except per share and percentage amounts)								
Personal & Commercial Banking	\$ 4,651	\$ 4,527	\$ 4,563	\$ 4,373	\$ 4,348	\$ 4,400	\$ 4,610	\$ 4,568
Wealth Management	3,424	3,394	3,387	3,068	3,164	2,822	3,166	3,187
Insurance	1,754	536	1,809	958	2,212	197	1,994	1,153
Investor & Treasury Services	517	534	565	521	484	709	597	566
Capital Markets ⁽²⁾	2,463	2,718	2,708	2,275	2,748	2,313	2,548	1,987
Corporate Support ⁽²⁾	(53)	(91)	(89)	(103)	(36)	(108)	(79)	(91)
Total revenue	12,756	11,618	12,943	11,092	12,920	10,333	12,836	11,370
PCL	(540)	(96)	110	427	675	2,830	419	499
PBCAE	1,304	149	1,406	461	1,785	(177)	1,614	654
Non-interest expense	6,420	6,379	6,542	6,058	6,380	5,942	6,378	6,319
Income before income taxes	5,572	5,186	4,885	4,146	4,080	1,738	4,425	3,898
Income taxes	1,276	1,171	1,038	900	879	257	916	692
Net income	\$ 4,296	\$ 4,015	\$ 3,847	\$ 3,246	\$ 3,201	\$ 1,481	\$ 3,509	\$ 3,206
EPS – basic	\$ 2.97	\$ 2.76	\$ 2.66	\$ 2.23	\$ 2.20	\$ 1.00	\$ 2.41	\$ 2.19
– diluted	2.97	2.76	2.66	2.23	2.20	1.00	2.40	2.18
Effective income tax rate	22.9%	22.6%	21.2%	21.7%	21.5%	14.8%	20.7%	17.8%
Period average US\$ equivalent of C\$1.00	\$ 0.812	\$ 0.798	\$ 0.779	\$ 0.756	\$ 0.737	\$ 0.725	\$ 0.760	\$ 0.755

(1) Fluctuations in the Canadian dollar relative to other foreign currencies have affected our consolidated results over the period.

(2) Teb adjusted. For further discussion, refer to the How we measure and report our business segments section of our 2020 Annual Report.

Seasonality

Seasonal factors may impact our results in certain quarters. The first quarter has historically been stronger for our Capital Markets businesses. The second quarter has fewer days than the other quarters, which generally results in a decrease in net interest income and certain expense items. The third and fourth quarters include the summer months which generally results in lower client activity and may negatively impact the results of our Capital Markets trading business.

Trend analysis

Earnings have generally trended upward over the period. However, earnings in the second quarter of 2020 reflected the impact of the onset of the COVID-19 pandemic across all of our business segments which resulted in a significant increase in PCL and fluctuations in revenue from the impact of market volatility, including interest rates and credit spreads, as well as client activity. Market conditions subsequently improved, and while impacts from the COVID-19 pandemic and its associated downstream implications persist, earnings have increased since the second quarter of 2020. Quarterly earnings are also affected by the impact of foreign exchange translation.

Personal & Commercial Banking revenue has benefitted from solid volume growth over the period. NIM has been negatively impacted by margin compression over the majority of the period from the lower interest rate environment, including cumulative BoC rate cuts of 150 bps in the second quarter of 2020.

Wealth Management revenue has benefitted from growth in average-fee based client assets and loans over the period. The majority of the period has been negatively impacted by a lower interest rate environment, mainly reflecting the cumulative U.S. Fed rate cuts of 150 bps in the second quarter of 2020. Changes in the fair value of hedges related to our U.S. share-based compensation plans, which are largely offset in Non-interest expense, have contributed to fluctuations in revenue over the period. The fourth quarter of 2019 included a gain on the sale of the private debt business of BlueBay.

Insurance revenue has fluctuated over the period, primarily due to the impact of changes in the fair value of investments backing policyholder liabilities as well as the timing of group annuity sales, both of which are largely offset in PBCAE. The first quarters of 2020 and 2021 reflect higher group annuity sales.

Investor & Treasury Services revenue has been impacted by interest rate movements, market volatility and client activity over the period, which resulted in heightened fluctuations in the second and third quarters of 2020 following the onset of the COVID-19 pandemic.

Capital Markets revenue is influenced, to a large extent, by market conditions that impact client activity, with first quarter results generally stronger than those in the remaining quarters. Markets experienced significant levels of volatility following the onset of the COVID-19 pandemic, which resulted in increased client activity and fluctuations in trading revenue, including higher trading revenue in the third quarter of 2020 and the first quarter of 2021. Elevated market volatility in the second quarter of 2020 also resulted in loan underwriting markdowns, with reversals in the latter half of 2020. The second and third quarters of 2021 saw strong equity and debt origination as well as M&A activity.

PCL on assets is comprised of provisions taken on performing assets and provisions taken on impaired assets. PCL on performing assets has fluctuated over the period as it is impacted by macroeconomic conditions, changes in exposures and credit quality as well as model changes. The impact of the COVID-19 pandemic resulted in a significant increase in provisions in 2020, largely in the second quarter. Throughout 2021, while uncertainty over the impact of the COVID-19 pandemic remains, we saw continued improvements in our macroeconomic and credit quality outlook resulting in releases of provisions on performing assets. PCL on impaired assets reflected normalized levels of credit losses towards the end of 2019, though the first quarter of 2020 saw lower provisions on impaired loans in Personal & Commercial Banking. The remainder of 2020 saw higher provisions on impaired loans in Capital Markets, largely in the oil and gas sector. The impact of the COVID-19 related government support and payment deferral programs contributed to lower provisions on impaired loans in our Canadian Banking retail portfolios since the second half of 2020. Through the first three quarters of 2021, we saw lower provisions on impaired loans in Capital Markets, largely due to recoveries in the oil and gas sector.

PBCAE has fluctuated over the period as it includes the impact of changes in the fair value of investments backing policyholder liabilities and the impact of group annuity sales, both of which are largely offset in Revenue. The fair value of investments backing policyholder liabilities is impacted by changes in market conditions. PBCAE has also fluctuated due to the impact of investment-related experience and claims costs over the period. Actuarial adjustments, which generally occur in the fourth quarter of each year, also impact PBCAE.

Non-interest expense has generally trended upwards over the period. Variable compensation has fluctuated over the period, commensurate with fluctuations in revenue and earnings, including the impact of decreased results in the second quarter of 2020. Changes in the fair value of our U.S. share-based compensation plans, which are largely offset in revenue, also cause fluctuations in staff-related costs and are impacted by market conditions. While we continue to focus on efficiency management activities, expenses over the period generally reflect higher costs in support of business growth, including staff-related costs, and our ongoing investments in technology and related costs, including digital initiatives. The fourth quarter of 2019 reflected severance and related costs associated with the repositioning of our Investor & Treasury Services business. Beginning in the second quarter of 2020, Non-interest expense also reflected incremental COVID-19 related costs, though these costs have subsided towards the latter part of the period.

Our effective income tax rate has fluctuated over the period, mostly due to varying levels of tax adjustments and changes in earnings mix. The second quarter of 2020 saw a decrease mainly due to a higher proportion of tax exempt income and income from lower tax rate jurisdictions relative to lower earnings in that quarter.

Financial condition

Condensed balance sheets

	As at	
	July 31 2021	October 31 2020
<i>(Millions of Canadian dollars)</i>		
Assets		
Cash and due from banks	\$ 115,407	\$ 118,888
Interest-bearing deposits with banks	80,389	39,013
Securities, net of applicable allowance (1)	271,950	275,814
Assets purchased under reverse repurchase agreements and securities borrowed	319,896	313,015
Loans		
Retail	491,890	457,976
Wholesale	210,739	208,655
Allowance for loan losses	(4,588)	(5,639)
Other – Derivatives	102,033	113,488
– Other (2)	105,824	103,338
Total assets	\$ 1,693,540	\$ 1,624,548
Liabilities		
Deposits	\$ 1,084,878	\$ 1,011,885
Other – Derivatives	97,150	109,927
– Other (2)	406,152	406,102
Subordinated debentures	9,050	9,867
Total liabilities	1,597,230	1,537,781
Equity attributable to shareholders	96,219	86,664
Non-controlling interests	91	103
Total equity	96,310	86,767
Total liabilities and equity	\$ 1,693,540	\$ 1,624,548

(1) Securities are comprised of Trading and Investment securities.

(2) Other – Other assets and liabilities include Segregated fund net assets and liabilities, respectively.

Q3 2021 vs. Q4 2020

Total assets increased \$69.0 billion or 4% from October 31, 2020. Foreign exchange translation decreased total assets by \$67.6 billion.

Cash and due from banks was down \$3.5 billion or 3%, primarily due to lower deposits with central banks, reflecting our short term cash management activities. The impact of foreign exchange translation also contributed to the decrease.

Interest-bearing deposits with banks increased \$41.4 billion, primarily due to higher deposits with central banks, reflecting our short term cash and liquidity management activities.

Securities, net of applicable allowance, were down \$3.9 billion or 1%, mainly due to lower government debt securities largely driven by both market conditions and our short-term cash management activities and the impact of foreign exchange translation. These factors were largely offset by higher equity trading securities.

Assets purchased under reverse repurchase agreements (reverse repos) and securities borrowed increased \$6.9 billion or 2%, largely due to increased client demand, partially offset by the impact of foreign exchange translation and our liquidity management activities.

Loans (net of Allowance for loan losses) were up \$37.0 billion or 6%, largely due to volume growth in residential mortgages and wholesale loans. These factors were partially offset by the impact of foreign exchange translation.

Derivative assets were down \$11.5 billion or 10%, mainly attributable to the impact of foreign exchange translation and lower fair values on interest rate contracts. These factors were partially offset by higher fair values on foreign exchange contracts.

Other assets were up \$2.5 billion or 2%, largely due to higher commodity trading receivables and increased employee benefit assets. These factors were largely offset by the impact of foreign exchange translation.

Total liabilities increased \$59.4 billion or 4%. Foreign exchange translation decreased total liabilities by \$67.6 billion.

Deposits increased \$73.0 billion or 7%, mainly due to higher business and retail deposits driven by client activity as well as our clients' preference for the safety of higher cash balances amidst the COVID-19 pandemic and lower client spending. Higher issuances of fixed term notes due to funding requirements also contributed to the increase. These factors were partially offset by the impact of foreign exchange translation.

Derivative liabilities were down \$12.8 billion or 12%, mainly attributable to the impact of foreign exchange translation and lower fair values on interest rate contracts. These factors were partially offset by higher fair values on foreign exchange contracts.

Other liabilities remained flat as higher obligations related to repurchase agreements (repos) and securities sold short were fully offset by the impact of foreign exchange translation.

Total equity increased \$9.5 billion or 11%, reflecting earnings, net of dividends and the issuance of limited recourse capital notes.

Off-balance sheet arrangements

In the normal course of business, we engage in a variety of financial transactions that, for accounting purposes, are not recorded on our Consolidated Balance Sheets. Off-balance sheet transactions are generally undertaken for risk, capital and funding management purposes which benefit us and our clients. These include transactions with structured entities and may also include the issuance of guarantees. These transactions give rise to, among other risks, varying degrees of market, credit, and liquidity and funding risk, which are discussed in the Risk management section of this Q3 2021 Report to Shareholders. Our significant off-balance sheet transactions include those described on pages 51 to 53 of our 2020 Annual Report.

Risk management**Credit risk**

Credit risk is the risk of loss associated with an obligor's potential inability or unwillingness to fulfill its contractual obligations on a timely basis and may arise directly from the risk of default of a primary obligor (e.g., issuer, debtor, counterparty, borrower or policyholder), indirectly from a secondary obligor (e.g., guarantor or reinsurer), through off-balance sheet exposures, contingent credit risk, associated credit risk and/or transactional risk. Credit risk includes counterparty credit risk arising from both trading and non-trading activities.

Our Credit Risk Framework (CRF) and supporting credit policies are designed to clearly define roles and responsibilities, acceptable practices, limits and key controls. There have been no material changes to our CRF as described in our 2020 Annual Report.

Residential mortgages and home equity lines of credit (insured vs. uninsured)

Residential mortgages and home equity lines of credit are secured by residential properties. The following table presents a breakdown by geographic region.

(Millions of Canadian dollars, except percentage amounts)	As at July 31, 2021					
	Residential mortgages				Home equity lines of credit	
	Insured (1)		Uninsured		Total	Total
Region (2)						
Canada						
Atlantic provinces	\$ 8,405	49%	\$ 8,674	51%	\$ 17,079	\$ 1,589
Quebec	12,922	33	26,800	67	39,722	3,040
Ontario	35,006	21	129,528	79	164,534	15,611
Alberta	20,868	50	20,537	50	41,405	5,425
Saskatchewan and Manitoba	9,224	47	10,597	53	19,821	1,995
B.C. and territories	13,620	21	49,783	79	63,403	7,437
Total Canada (3)	100,045	29	245,919	71	345,964	35,097
U.S. (4)	–	–	21,974	100	21,974	1,442
Other International (4)	–	–	2,772	100	2,772	1,325
Total International	–	–	24,746	100	24,746	2,767
Total	\$ 100,045	27%	\$ 270,665	73%	\$ 370,710	\$ 37,864

(Millions of Canadian dollars, except percentage amounts)	As at April 30, 2021					
	Residential mortgages				Home equity lines of credit	
	Insured (1)		Uninsured		Total	Total
Region (2)						
Canada						
Atlantic provinces	\$ 8,387	50%	\$ 8,365	50%	\$ 16,752	\$ 1,603
Quebec	12,902	33	25,617	67	38,519	3,066
Ontario	36,033	23	121,729	77	157,762	15,525
Alberta	20,978	51	20,033	49	41,011	5,556
Saskatchewan and Manitoba	9,243	47	10,438	53	19,681	2,008
B.C. and territories	14,006	23	47,249	77	61,255	7,535
Total Canada (3)	101,549	30	233,431	70	334,980	35,293
U.S. (4)	–	–	20,279	100	20,279	1,419
Other International (4)	–	–	2,744	100	2,744	1,315
Total International	–	–	23,023	100	23,023	2,734
Total	\$ 101,549	28%	\$ 256,454	72%	\$ 358,003	\$ 38,027

- (1) Insured residential mortgages are mortgages whereby our exposure to default is mitigated by insurance through CMHC or other private mortgage default insurers.
- (2) Region is based upon the address of the property mortgaged. The Atlantic provinces are comprised of Newfoundland and Labrador, Prince Edward Island, Nova Scotia and New Brunswick, and B.C. and territories are comprised of British Columbia, Nunavut, Northwest Territories and Yukon.
- (3) Total consolidated residential mortgages in Canada of \$346.0 billion (April 30, 2021 – \$335.0 billion) includes \$11.2 billion (April 30, 2021 – \$11.1 billion) of mortgages with commercial clients in Canadian Banking, of which \$7.8 billion (April 30, 2021 – \$7.7 billion) are insured mortgages, and \$18.2 billion (April 30, 2021 – \$18.4 billion) of residential mortgages held for securitization purposes in Capital Markets. All of the residential mortgages held for securitization purposes are insured (April 30, 2021 – all insured).
- (4) Home equity lines of credit include term loans collateralized by residential mortgages.

Home equity lines of credit are uninsured and reported within the personal loan category.

Residential mortgages portfolio by amortization period

The following table provides a summary of the percentage of residential mortgages that fall within the remaining amortization periods based upon current customer payment amounts, which incorporate payments larger than the minimum contractual amount and/or higher frequency of payments.

Amortization period	As at					
	July 31 2021			April 30 2021		
	Canada	U.S. and other International	Total	Canada	U.S. and other International (1)	Total
≤ 25 years	76%	27%	72%	77%	27%	73%
> 25 years ≤ 30 years	24	71	27	23	70	26
> 30 years ≤ 35 years	–	2	1	–	3	1
Total	100%	100%	100%	100%	100%	100%

- (1) The percentage amounts of residential mortgages by remaining amortization period have been revised from those previously presented.

Average loan-to-value (LTV) ratios

The following table provides a summary of our average LTV ratios for newly originated and acquired uninsured residential mortgages and RBC Homeline Plan® products by geographic region.

	For the three months ended				For the nine months ended	
	July 31 2021		April 30 2021		July 31 2021	
	Uninsured		Uninsured		Uninsured	
	Residential mortgages (1)	RBC Homeline Plan® products (2)	Residential mortgages (1)	RBC Homeline Plan® products (2)	Residential mortgages (1)	RBC Homeline Plan® products (2)
Region (3)						
Atlantic provinces	74%	75%	75%	75%	75%	75%
Quebec	73	74	72	74	73	74
Ontario	72	68	71	69	71	68
Alberta	73	73	73	73	73	73
Saskatchewan and Manitoba	74	75	74	75	74	75
B.C. and territories	69	67	70	67	70	67
U.S.	75	n.m.	72	n.m.	74	n.m.
Other International	74	n.m.	71	n.m.	72	n.m.
Average of newly originated and acquired for the period (4), (5)	72%	69%	72%	69%	72%	69%
Total Canadian Banking residential mortgages portfolio (6)	53%	46%	55%	48%	53%	46%

- (1) Residential mortgages exclude residential mortgages within the RBC Homeline Plan® products.
(2) RBC Homeline Plan® products are comprised of both residential mortgages and home equity lines of credit.
(3) Region is based upon the address of the property mortgaged. The Atlantic provinces are comprised of Newfoundland and Labrador, Prince Edward Island, Nova Scotia and New Brunswick, and B.C. and territories are comprised of British Columbia, Nunavut, Northwest Territories and Yukon.
(4) The average LTV ratios for newly originated and acquired uninsured residential mortgages and RBC Homeline Plan® products are calculated on a weighted basis by mortgage amounts at origination.
(5) For newly originated mortgages and RBC Homeline Plan® products, LTV is calculated based on the total facility amount for the residential mortgage and RBC Homeline Plan® product divided by the value of the related residential property.
(6) Weighted by mortgage balances and adjusted for property values based on the Teranet – National Bank National Composite House Price Index.
n.m. not meaningful

Net European exposure by country, asset type and client type (1), (2)

(Millions of Canadian dollars)	As at								
	July 31 2021								April 30 2021
	Asset type				Client type				Total
	Loans Outstanding	Securities (3)	Repo-style transactions	Derivatives	Financials	Sovereign	Corporate		
U.K.	\$ 10,054	\$ 19,009	\$ 507	\$ 4,523	\$ 12,862	\$ 11,214	\$ 10,017	\$ 34,093	\$ 32,914
Germany	1,295	8,599	1	123	5,444	2,882	1,692	10,018	9,769
France	1,583	11,551	17	282	1,791	10,629	1,013	13,433	10,495
Total U.K., Germany, France	12,932	39,159	525	4,928	20,097	24,725	12,722	57,544	53,178
Ireland	1,059	659	319	51	851	1	1,236	2,088	1,724
Italy	85	306	–	5	175	71	150	396	337
Portugal	–	13	–	–	11	–	2	13	26
Spain	379	289	30	22	285	–	435	720	570
Total peripheral	1,523	1,267	349	78	1,322	72	1,823	3,217	2,657
Luxembourg	3,697	4,882	51	66	2,643	4,361	1,692	8,696	7,663
Netherlands	950	883	53	112	718	1	1,279	1,998	1,850
Norway	165	1,334	–	27	812	519	195	1,526	1,373
Sweden	401	1,329	14	22	752	809	205	1,766	1,849
Switzerland	982	12,662	215	47	968	12,156	782	13,906	13,322
Other	2,250	2,438	74	186	1,888	1,095	1,965	4,948	4,312
Total other Europe	8,445	23,528	407	460	7,781	18,941	6,118	32,840	30,369
Net exposure to Europe (4), (5)	\$ 22,900	\$ 63,954	\$ 1,281	\$ 5,466	\$ 29,200	\$ 43,738	\$ 20,663	\$ 93,601	\$ 86,204

- (1) Geographic profile is based on country of risk, which reflects our assessment of the geographic risk associated with a given exposure. Typically, this is the residence of the borrower.
(2) Exposures are calculated on a fair value basis and net of collateral, which includes \$152.2 billion against repo-style transactions (April 30, 2021 – \$151.3 billion) and \$9.6 billion against derivatives (April 30, 2021 – \$10.0 billion).
(3) Securities include \$11.4 billion of trading securities (April 30, 2021 – \$11.1 billion), \$39.3 billion of deposits (April 30, 2021 – \$34.6 billion) and \$13.3 billion of investment securities (April 30, 2021 – \$13.5 billion).
(4) Excludes \$1.8 billion (April 30, 2021 – \$2.2 billion) of exposures to supranational agencies, predominantly in Luxembourg.
(5) Reflects \$1.0 billion of mitigation through credit default swaps, which are largely used to hedge single name exposures and market risk (April 30, 2021 – \$1.5 billion).

Credit quality performance

The following credit quality performance tables and analysis provide information on loans, which represents loans, acceptances and commitments, and other financial assets.

Provision for credit losses

(Millions of Canadian dollars, except percentage amounts)	For the three months ended			For the nine months ended	
	July 31 2021	April 30 2021	July 31 2020	July 31 2021	July 31 2020
Personal & Commercial Banking	\$ (171)	\$ 39	\$ 526	\$ 36	\$ 2,556
Wealth Management	(21)	(2)	76	(51)	161
Capital Markets	(300)	(116)	80	(435)	1,110
Corporate Support and other	–	(4)	(4)	(4)	6
PCL – Loans	(492)	(83)	678	(454)	3,833
PCL – Other financial assets	(48)	(13)	(3)	(72)	91
Total PCL	\$ (540)	\$ (96)	\$ 675	\$ (526)	\$ 3,924
PCL on loans is comprised of:					
Retail	\$ (307)	\$ (104)	\$ 252	\$ (474)	\$ 1,011
Wholesale	(331)	(156)	28	(521)	1,473
PCL on performing loans	(638)	(260)	280	(995)	2,484
Retail	139	166	227	485	779
Wholesale	7	11	171	56	570
PCL on impaired loans	146	177	398	541	1,349
PCL – Loans	\$ (492)	\$ (83)	\$ 678	\$ (454)	\$ 3,833
PCL on loans as a % of average net loans and acceptances	(0.28)%	(0.05)%	0.40%	(0.09)%	0.77%
PCL on impaired loans as a % of average net loans and acceptances	0.08%	0.11%	0.23%	0.10%	0.27%

Additional information by geography ⁽¹⁾

Canada					
Residential mortgages	\$ 5	\$ 5	\$ 6	\$ 25	\$ 25
Personal	50	69	84	204	351
Credit cards	77	79	106	223	382
Small business	4	8	14	21	40
Retail	136	161	210	473	798
Wholesale	8	29	70	71	152
PCL on impaired loans	144	190	280	544	950
U.S.					
Retail	2	2	3	3	3
Wholesale	(3)	7	92	(17)	325
PCL on impaired loans	(1)	9	95	(14)	328
Other International					
Retail	1	3	14	9	(22)
Wholesale	2	(25)	9	2	93
PCL on impaired loans	3	(22)	23	11	71
PCL on impaired loans	\$ 146	\$ 177	\$ 398	\$ 541	\$ 1,349

(1) Geographic information is based on residence of the borrower.

Q3 2021 vs. Q3 2020

Total PCL was \$(540) million. PCL on loans of \$(492) million decreased \$1,170 million from a year ago, due to lower provisions in Personal & Commercial Banking, Capital Markets and Wealth Management. The PCL on loans ratio of (28) bps decreased 68 bps.

PCL on performing loans was \$(638) million, compared to \$280 million in the prior year, reflecting releases of provisions in Personal & Commercial Banking, Capital Markets and Wealth Management in the current quarter mainly driven by improvements in our credit quality and macroeconomic outlook as compared to provisions taken in the prior year due to the evolving impact of the COVID-19 pandemic.

PCL on impaired loans of \$146 million decreased \$252 million, mainly due to lower provisions in Personal & Commercial Banking. Provisions taken in Capital Markets and Wealth Management in the prior year as compared to recoveries in the current quarter also contributed to the decrease.

PCL on loans in Personal & Commercial Banking decreased \$697 million, primarily reflecting releases of provisions on performing loans in the current quarter, largely in our Canadian Banking retail portfolios, as compared to provisions taken in the prior year, as described above. Lower provisions on impaired loans in our Canadian Banking portfolios also contributed to the decrease.

PCL on loans in Wealth Management decreased \$97 million in U.S. Wealth Management (including City National), largely reflecting releases of provisions on performing loans in the current quarter as compared to provisions taken in the prior year, as described above. Provisions on impaired loans in the prior year, mainly in the industrial products sector, as compared to recoveries in the current quarter, also contributed to the decrease.

PCL on loans in Capital Markets decreased \$380 million, largely due to releases of provisions on performing loans in the current quarter, as described above. Recoveries on impaired loans in the real estate and related sector in the current quarter as compared to provisions taken in the oil and gas and real estate and related sectors in the prior year, also contributed to the decrease.

Q3 2021 vs. Q2 2021

PCL on loans of \$(492) million decreased \$409 million from last quarter, primarily due to lower provisions in Personal & Commercial Banking and Capital Markets. The PCL on loans ratio of (28) bps decreased 23 bps.

PCL on performing loans of \$(638) million decreased \$378 million, primarily reflecting higher releases of provisions in Capital Markets and Personal & Commercial Banking mainly driven by continued improvements in our credit quality and macroeconomic outlook.

PCL on impaired loans of \$146 million decreased \$31 million, primarily due to lower provisions in Personal & Commercial Banking, partially offset by lower recoveries in Capital Markets as compared to the prior quarter.

PCL on loans in Personal & Commercial Banking decreased \$210 million, primarily due to higher releases of provisions on performing loans in our Canadian Banking retail portfolios, as described above. Lower provisions on impaired loans in our Canadian Banking retail portfolios also contributed to the decrease.

PCL on loans in Capital Markets decreased \$184 million, primarily due to higher releases of provisions on performing loans in the current quarter, as described above, partially offset by lower recoveries on impaired loans in the current quarter.

Q3 2021 vs. Q3 2020 (Nine months ended)

Total PCL was \$(526) million. PCL on loans of \$(454) million decreased \$4,287 million from the same period last year, due to lower provisions in Personal & Commercial Banking, Capital Markets and Wealth Management. The PCL on loans ratio of (9) bps decreased 86 bps.

PCL on performing loans was \$(995) million, compared to \$2,484 million in the same period last year, reflecting elevated provisions in Personal & Commercial Banking, Capital Markets and Wealth Management in the prior year due to the impact of the COVID-19 pandemic and releases in the current year driven by improvements in our macroeconomic and credit quality outlook.

PCL on impaired loans of \$541 million decreased \$808 million, mainly due to provisions taken in the same period last year in Capital Markets and Wealth Management as compared to recoveries in the current year. Lower provisions in Personal & Commercial Banking also contributed to the decrease.

PCL on loans in Personal & Commercial Banking decreased \$2,520 million, mainly reflecting provisions on performing loans in our Canadian Banking portfolios in the same period last year as compared to releases in the current year, as described above. Lower provisions on impaired loans in our Canadian Banking retail portfolios, partially offset by provisions in our Caribbean Banking portfolios in the current year as compared to recoveries in the prior year, also contributed to the decrease.

PCL on loans in Wealth Management decreased \$212 million in U.S. Wealth Management (including City National), largely reflecting provisions on performing loans in the same period last year as compared to releases in the current year, as described above. Provisions on impaired loans in a few sectors, including the industrial products and investment sectors, in the prior year as compared to recoveries in a few sectors, including consumer discretionary and consumer staples sectors, in the current year, also contributed to the decrease.

PCL on loans in Capital Markets decreased \$1,545 million, mainly reflecting provisions on performing loans in the same period last year as compared to releases in the current year, as described above. Provisions on impaired loans in the same period last year as compared to recoveries in a few sectors in the current year, including the oil and gas sector, also contributed to the decrease.

Gross impaired loans

	As at and for the three months ended		
	July 31 2021	April 30 2021	July 31 2020
(Millions of Canadian dollars, except percentage amounts)			
Personal & Commercial Banking	\$ 1,635	\$ 1,739	\$ 1,746
Wealth Management	320	338	487
Capital Markets	606	700	1,624
Total GIL	\$ 2,561	\$ 2,777	\$ 3,857
Canada (1)			
Retail	\$ 740	\$ 822	\$ 850
Wholesale	566	613	754
GIL	1,306	1,435	1,604
U.S. (1)			
Retail	23	22	27
Wholesale	585	651	1,570
GIL	608	673	1,597
Other International (1)			
Retail	226	226	206
Wholesale	421	443	450
GIL	647	669	656
Total GIL	\$ 2,561	\$ 2,777	\$ 3,857
Impaired loans, beginning balance	\$ 2,777	\$ 2,872	\$ 3,529
Classified as impaired during the period (new impaired) (2)	293	605	1,265
Net repayments (2)	(124)	(285)	(381)
Amounts written off	(268)	(301)	(465)
Other (2), (3)	(117)	(114)	(91)
Impaired loans, balance at end of period	\$ 2,561	\$ 2,777	\$ 3,857
GIL as a % of related loans and acceptances			
Total GIL as a % of related loans and acceptances	0.35%	0.40%	0.57%
Personal & Commercial Banking	0.31%	0.34%	0.36%
Canadian Banking	0.25%	0.28%	0.30%
Caribbean Banking	4.98%	4.98%	4.04%
Wealth Management	0.37%	0.40%	0.60%
Capital Markets	0.58%	0.73%	1.51%

(1) Geographic information is based on residence of the borrower.

(2) Certain GIL movements for Canadian Banking retail and wholesale portfolios are generally allocated to new impaired, as Net repayments and certain Other movements are not reasonably determinable. Certain GIL movements for Caribbean Banking retail and wholesale portfolios are generally allocated to Net repayments and new impaired, as Net repayments and certain Other movements are not reasonably determinable.

(3) Includes return to performing status during the period, recoveries of loans and advances previously written off, sold, and foreign exchange translation and other movements.

Q3 2021 vs. Q3 2020

Total GIL of \$2,561 million decreased \$1,296 million or 34% from a year ago and the total GIL ratio of 35 bps decreased 22 bps, reflecting lower impaired loans in Capital Markets, Wealth Management and Personal & Commercial Banking.

GIL in Personal & Commercial Banking decreased \$111 million or 6%, mainly due to lower impaired loans in the majority of our Canadian Banking retail portfolios. Lower impaired loans in our Canadian Banking commercial portfolios also contributed to the decrease, largely offset by higher impaired loans in our Caribbean Banking portfolios.

GIL in Wealth Management decreased \$167 million or 34%, reflecting lower impaired loans in U.S. Wealth Management (including City National) and International Wealth Management, primarily in the investments sector.

GIL in Capital Markets decreased \$1,018 million or 63%, primarily due to lower impaired loans in a few sectors, including the oil and gas and consumer discretionary sectors.

Q3 2021 vs. Q2 2021

Total GIL decreased \$216 million or 8% from last quarter, and the total GIL ratio of 35 bps decreased 5 bps, primarily reflecting lower impaired loans in Personal & Commercial Banking and Capital Markets.

GIL in Personal & Commercial Banking decreased \$104 million or 6%, primarily due to lower impaired loans in our Canadian Banking retail and commercial portfolios.

GIL in Capital Markets decreased \$94 million or 13%, primarily due to lower impaired loans in a few sectors, including the real estate and related sector, partially offset by higher impaired loans in the other services sector.

Allowance for credit losses (ACL)

	As at		
	July 31 2021	April 30 2021	July 31 2020
(Millions of Canadian dollars)			
Personal & Commercial Banking	\$ 3,859	\$ 4,204	\$ 4,321
Wealth Management	343	353	365
Capital Markets	664	966	1,371
Corporate Support and other	1	2	8
ACL on loans	4,867	5,525	6,065
ACL on other financial assets	62	114	118
Total ACL	\$ 4,929	\$ 5,639	\$ 6,183
ACL on loans is comprised of:			
Retail	\$ 2,495	\$ 2,798	\$ 2,878
Wholesale	1,590	1,908	2,154
ACL on performing loans	\$ 4,085	\$ 4,706	\$ 5,032
ACL on impaired loans	782	819	1,033

Additional information by geography (1)

Canada			
Retail	\$ 163	\$ 183	\$ 190
Wholesale	199	216	236
ACL on impaired loans	362	399	426
U.S.			
Retail	1	1	2
Wholesale	143	150	325
ACL on impaired loans	144	151	327
Other International			
Retail	116	112	118
Wholesale	160	157	162
ACL on impaired loans	276	269	280
ACL on impaired loans	\$ 782	\$ 819	\$ 1,033

(1) Geographic information is based on residence of the borrower.

Q3 2021 vs. Q3 2020

Total ACL of \$4,929 million decreased \$1,254 million or 20% from a year ago, primarily reflecting a decrease of \$1,198 million in ACL on loans.

ACL on performing loans of \$4,085 million decreased \$947 million, reflecting lower ACL in Capital Markets and Personal & Commercial Banking. While uncertainty over the timing of a full recovery from the COVID-19 pandemic remains, the decrease was driven by continued improvements in our macroeconomic and credit quality outlook in the current quarter.

ACL on impaired loans of \$782 million decreased \$251 million, due to lower ACL in Capital Markets, Wealth Management and Personal & Commercial Banking.

Q3 2021 vs. Q2 2021

Total ACL of \$4,929 million decreased \$710 million or 13% from last quarter, primarily reflecting a decrease of \$658 million in ACL on loans.

ACL on performing loans of \$4,085 million decreased \$621 million, primarily reflecting lower ACL in Personal & Commercial Banking and Capital Markets. While uncertainty over the timing of a full recovery from the COVID-19 pandemic remains, the decrease was mainly driven by continued improvements in our macroeconomic and credit quality outlook in the current quarter.

ACL on impaired loans of \$782 million decreased \$37 million, primarily due to lower ACL in Capital Markets and Personal & Commercial Banking.

For further details, refer to Note 5 of our Condensed Financial Statements.

Market risk

Market risk is defined to be the impact of market prices upon our financial condition. This includes potential gains or losses due to changes in market determined variables such as interest rates, credit spreads, equity prices, commodity prices, foreign exchange rates and implied volatilities. There have been no material changes to our Market Risk Framework from the framework described in our 2020 Annual Report. We continue to manage the controls and governance procedures that ensure that our market risk exposure is consistent with risk appetite constraints set by the Board of Directors. These controls include limits on probabilistic measures of potential loss in trading positions, such as Value-at-Risk (VaR), Stressed Value-at-Risk (SVaR) and Incremental Risk Charge (IRC).

Market risk controls are also in place to manage Interest Rate Risk in the Banking Book (IRRBB) that arises primarily from traditional customer-originated banking products such as deposits and loans, and also includes related hedges as well as the interest rate risk from securities held for liquidity management. Factors contributing to IRRBB include the mismatch between asset and liability repricing dates, relative changes in asset and liability rates in response to market rate scenarios, and other product features that could affect the expected timing of cash flows, such as options to pre-pay loans or redeem term deposits prior to contractual maturity. To monitor and control IRRBB, we assess two primary metrics, Net Interest Income (NII) risk and Economic Value of Equity (EVE) risk, under a range of market shocks, scenarios, and time horizons. There has been no material change to the IRRBB measurement methodology, controls, or limits from those described in our 2020 Annual Report. For further details of our approach to the management of market risk, refer to the Market risk section of our 2020 Annual Report.

Market risk measures – FVTPL positions

VaR and SVaR

The following table presents our Market risk VaR and Market risk SVaR figures.

(Millions of Canadian dollars)	July 31, 2021				April 30, 2021		July 31, 2020	
	As at	For the three months ended			As at	For the three months ended	As at	For the three months ended
		Average	High	Low		Average		Average
Equity	\$ 20	\$ 19	\$ 33	\$ 12	\$ 20	\$ 18	\$ 28	\$ 43
Foreign exchange	4	5	6	3	5	4	4	3
Commodities	4	3	4	2	2	2	5	5
Interest rate (1)	39	49	64	35	48	44	44	95
Credit specific (2)	7	9	11	7	9	8	6	7
Diversification (3)	(30)	(41)	n.m.	n.m.	(30)	(34)	(25)	(30)
Market risk VaR	\$ 44	\$ 44	\$ 62	\$ 30	\$ 54	\$ 42	\$ 62	\$ 123
Market risk Stressed VaR	\$ 50	\$ 50	\$ 66	\$ 32	\$ 58	\$ 53	\$ 65	\$ 130

(Millions of Canadian dollars)	July 31, 2021				July 31, 2020	
	As at	For the nine months ended			As at	For the nine months ended
		Average	High	Low		Average
Equity	\$ 20	\$ 18	\$ 33	\$ 12	\$ 28	\$ 34
Foreign exchange	4	4	6	2	4	3
Commodities	4	3	4	2	5	3
Interest rate (1)	39	44	64	21	44	57
Credit specific (2)	7	8	11	6	6	6
Diversification (3)	(30)	(35)	n.m.	n.m.	(25)	(23)
Market risk VaR	\$ 44	\$ 42	\$ 72	\$ 23	\$ 62	\$ 80
Market risk Stressed VaR	\$ 50	\$ 52	\$ 101	\$ 30	\$ 65	\$ 120

(1) General credit spread risk and funding spread risk associated with uncollateralized derivatives are included under interest rate VaR.

(2) Credit specific risk captures issuer-specific credit spread volatility.

(3) Market risk VaR is less than the sum of the individual risk factor VaR results due to portfolio diversification.

n.m. not meaningful

Q3 2021 vs. Q3 2020

Average market risk VaR of \$44 million decreased \$79 million and average SVaR of \$50 million decreased \$80 million from a year ago. In Q3 2020, overall market volatility and credit spreads were improving relative to the market turmoil experienced in Q2 2020, but were still heightened compared to the current quarter. This impacted loan underwriting commitments as well as fixed income and equity portfolios last year. VaR levels have continued to remain relatively stable since Q3 2020 and reflect increased diversification across our trading businesses.

Q3 2021 vs. Q2 2021

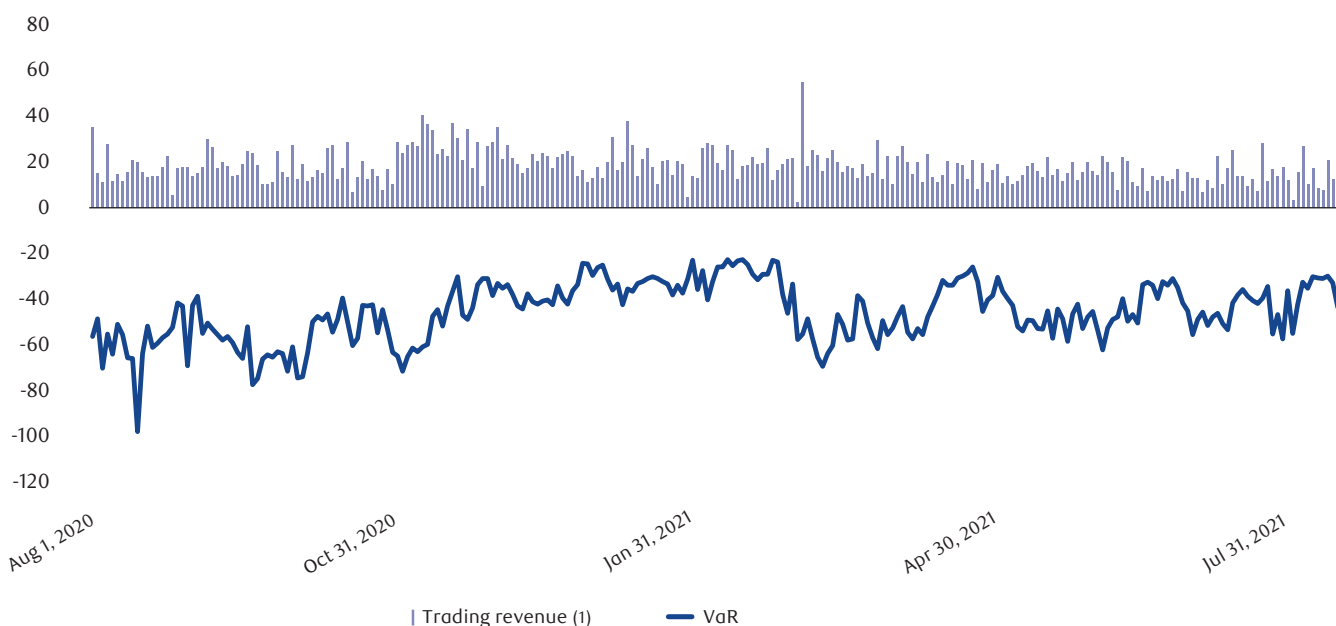
Average market risk VaR of \$44 million and average SVaR of \$50 million remained stable.

Q3 2021 vs. Q3 2020 (Nine months ended)

Average market risk VaR of \$42 million decreased \$38 million and average SVaR of \$52 million decreased \$68 million from the same period last year, both mainly due to the effects noted above.

The following chart displays a bar graph of our daily trading profit and loss and a line graph of our daily market risk VaR. We incurred no net trading losses in the three months ended July 31, 2021 and April 30, 2021.

Trading revenue (1) and VaR (Millions of Canadian dollars)



(1) Includes loan underwriting commitments.

Market risk measures for assets and liabilities of RBC Insurance®

We offer a range of insurance products to clients and hold investments to meet the future obligations to policyholders. The investments which support actuarial liabilities are predominantly fixed income assets designated as FVTPL. Consequently, changes in the fair values of these assets are recorded in the Consolidated Statements of Income and are largely offset by changes in the fair value of the actuarial liabilities, the impact of which is reflected in Insurance policyholder benefits, claims and acquisition expense. As at July 31, 2021, we held assets in support of \$12.4 billion of liabilities with respect to insurance obligations (April 30, 2021 – \$12.1 billion).

Market risk measures – IRRBB sensitivities

The following table shows the potential before-tax impact of an immediate and sustained 100 bps increase or decrease in interest rates on projected 12-month NII and EVE, assuming no subsequent hedging. Rate floors are applied within the declining rates scenarios which prevent EVE valuation and NII simulation rate levels from falling below a minimum average level of negative 25 bps across major currencies. Interest rate risk measures are based upon interest rate exposures at a specific time, which over time, can change in response to business activities and management actions.

(Millions of Canadian dollars)	July 31, 2021						April 30, 2021		July 31, 2020	
	EVE risk			NII risk (1)			EVE risk	NII risk (1)	EVE risk	NII risk (1)
	Canadian dollar impact	U.S. dollar impact	Total	Canadian dollar impact	U.S. dollar impact	Total				
Before-tax impact of:										
100 bps increase in rates (2)	\$ (1,656)	\$ (279)	\$ (1,935)	\$ 635	\$ 367	\$ 1,002	\$ (2,064)	\$ 858	\$ (1,763)	\$ 782
100 bps decrease in rates (2)	1,467	67	1,534	(616)	(236)	(852)	1,771	(858)	1,380	(570)

(1) Represents the 12-month NII exposure to an instantaneous and sustained shift in interest rates.

(2) Effective Q4 2020 the IRRBB 100 bps increase and decrease in rates scenarios were updated on a prospective basis in accordance with OSFI's B-12: Interest Rate Risk Management guideline. This resulted in the inclusion of EVE and NII risk arising from Capital Markets and treasury related services within Investor & Treasury Services banking book activities beginning in Q4 2020.

As at July 31, 2021, an immediate and sustained -100 bps shock would have had a negative impact to our NII of \$852 million, down from \$858 million last quarter, and an immediate and sustained +100bps shock would have had a positive impact to our NII of \$1,002 million, up from \$858 million last quarter. An immediate and sustained +100 bps shock at the end of July 31, 2021 would have had a negative impact to the bank's EVE of \$1,935 million, down from \$2,064 million reported last quarter. The quarter-over-quarter change in NII sensitivity was largely attributable to deposit growth predominantly in Canada impacting mainly the +100 bps shock, while the -100 bps shock remained relatively stable reflecting low prevailing interest rates. Quarter-over-quarter EVE sensitivity declined due to lower net fixed rate assets. During the third quarter of 2021, NII and EVE risks remained within approved limits.

Market risk measures for other material non-trading portfolios

Investment securities carried at FVOCI

We held \$71.5 billion of investment securities carried at FVOCI as at July 31, 2021, compared to \$63.1 billion at the end of the prior quarter. We hold debt securities carried at FVOCI primarily as investments, as well as to manage liquidity risk and hedge interest rate risk in our non-trading banking balance sheet. As at July 31, 2021, our portfolio of investment securities carried at FVOCI is interest rate sensitive and would impact OCI by a pre-tax change in value of \$7 million as measured by the change in the value of the securities for a one basis point parallel increase in yields. The portfolio also exposes us to credit spread risk of a pre-tax change in value of \$18 million, as measured by the change in value for a one basis point widening of credit spreads. The value of the investment securities carried at FVOCI included in our IRRBB measures as at July 31, 2021 was \$68.8 billion. Our investment securities carried at FVOCI also include equity exposures of \$0.5 billion as at July 31, 2021, unchanged from the prior quarter.

Non-trading foreign exchange rate risk

Foreign exchange rate risk is the potential adverse impact on earnings and economic value due to changes in foreign currency rates. Our revenue, expenses and income denominated in currencies other than the Canadian dollar are subject to fluctuations as a result of changes in the value of the average Canadian dollar relative to the average value of those currencies. Our most significant exposure is to the U.S. dollar, due to our operations in the U.S. and other activities conducted in U.S. dollars. Other significant exposures are to the British pound and the Euro, due to our activities conducted internationally in these currencies. A strengthening or weakening of the Canadian dollar compared to the U.S. dollar, British pound and the Euro could reduce or increase, as applicable, the translated value of our foreign currency denominated revenue, expenses and earnings and could have a significant effect on the results of our operations. We are also exposed to foreign exchange rate risk arising from our investments in foreign operations. For unhedged equity investments, when the Canadian dollar appreciates against other currencies, the unrealized translation losses on net foreign investments decreases our shareholders' equity through the other components of equity and decreases the translated value of the risk-weighted assets (RWA) of the foreign currency-denominated asset. The reverse is true when the Canadian dollar depreciates against other currencies. Consequently, we consider these impacts in selecting an appropriate level of our investments in foreign operations to be hedged.

Derivatives related to non-trading activity

Derivatives are also used to hedge market risk exposure unrelated to our trading activity. Hedge accounting is elected where applicable. These derivatives are included in our IRRBB measure and other internal non-trading market risk measures. We use interest rate swaps to manage our IRRBB, funding and investment activities. Interest rate swaps are also used to hedge changes in the fair value of certain fixed-rate instruments. We also use foreign exchange derivatives to manage our exposure to equity investments in subsidiaries that are denominated in foreign currencies, particularly the U.S. dollar, British Pound, and Euro.

For further details on the application of hedge accounting and the use of derivatives for hedging activities, refer to Notes 2 and 8 of our 2020 Annual Consolidated Financial Statements.

Linkage of market risk to selected balance sheet items

The following tables provide the linkages between selected balance sheet items with positions included in our trading market risk and non-trading market risk disclosures, which illustrates how we manage market risk for our assets and liabilities through different risk measures:

(Millions of Canadian dollars)	As at July 31, 2021			
	Balance sheet amount	Market risk measure		Non-traded risk primary risk sensitivity
		Traded risk (1)	Non-traded risk (2)	
Assets subject to market risk				
Cash and due from banks	\$ 115,407	\$ –	\$ 115,407	Interest rate
Interest-bearing deposits with banks	80,389	53,500	26,889	Interest rate
Securities				
Trading	133,894	122,183	11,711	Interest rate, credit spread
Investment, net of applicable allowance	138,056	–	138,056	Interest rate, credit spread, equity
Assets purchased under reverse repurchase agreements and securities borrowed	319,896	278,378	41,518	Interest rate
Loans				
Retail	491,890	8,983	482,907	Interest rate
Wholesale	210,739	9,089	201,650	Interest rate
Allowance for loan losses	(4,588)	–	(4,588)	Interest rate
Segregated fund net assets	2,526	–	2,526	Interest rate
Other				
Derivatives	102,033	98,732	3,301	Interest rate, foreign exchange
Other assets	91,476	8,866	82,610	Interest rate
Assets not subject to market risk (3)	11,822			
Total assets	\$ 1,693,540	\$ 579,731	\$ 1,101,987	
Liabilities subject to market risk				
Deposits	\$ 1,084,878	\$ 127,182	\$ 957,696	Interest rate
Segregated fund liabilities	2,526	–	2,526	Interest rate
Other				
Obligations related to securities sold short	34,760	34,760	–	
Obligations related to assets sold under repurchase agreements and securities loaned	271,165	248,196	22,969	Interest rate
Derivatives	97,150	95,404	1,746	Interest rate, foreign exchange
Other liabilities	81,802	8,536	73,266	Interest rate
Subordinated debentures	9,050	–	9,050	Interest rate
Liabilities not subject to market risk (4)	15,899			
Total liabilities	\$ 1,597,230	\$ 514,078	\$ 1,067,253	
Total equity	96,310			
Total liabilities and equity	\$ 1,693,540			

(1) Traded risk includes positions that are classified or designated as FVTPL and positions whose revaluation gains and losses are reported in revenue. Market risk measures of VaR and SVaR and stress testing are used as risk controls for traded risk.

(2) Non-traded risk includes positions used in the management of IRRBB and other non-trading portfolios. Other material non-trading portfolios include positions from RBC Insurance® and investment securities, net of applicable allowance, not included in IRRBB.

(3) Assets not subject to market risk include physical and other assets.

(4) Liabilities not subject to market risk include payroll related and other liabilities.

(Millions of Canadian dollars)	As at April 30, 2021			
	Balance sheet amount	Market risk measure		Non-traded risk primary risk sensitivity
		Traded risk (1)	Non-traded risk (2)	
Assets subject to market risk				
Cash and due from banks	\$ 114,307	\$ –	\$ 114,307	Interest rate
Interest-bearing deposits with banks	63,438	41,380	22,058	Interest rate
Securities				
Trading	125,733	114,777	10,956	Interest rate, credit spread
Investment, net of applicable allowance	129,419	–	129,419	Interest rate, credit spread, equity
Assets purchased under reverse repurchase agreements and securities borrowed	308,031	265,880	42,151	Interest rate
Loans				
Retail	476,230	8,147	468,083	Interest rate
Wholesale	202,427	7,107	195,320	Interest rate
Allowance for loan losses	(5,146)	–	(5,146)	Interest rate
Segregated fund net assets	2,338	–	2,338	Interest rate
Other				
Derivatives	97,236	93,285	3,951	Interest rate, foreign exchange
Other assets	90,223	8,513	81,710	Interest rate
Assets not subject to market risk (3)	11,080			
Total assets	\$ 1,615,316	\$ 539,089	\$ 1,065,147	
Liabilities subject to market risk				
Deposits	\$ 1,033,323	\$ 125,786	\$ 907,537	Interest rate
Segregated fund liabilities	2,338	–	2,338	Interest rate
Other				
Obligations related to securities sold short	31,817	31,817	–	
Obligations related to assets sold under repurchase agreements and securities loaned	257,049	235,509	21,540	Interest rate
Derivatives	92,402	90,309	2,093	Interest rate, foreign exchange
Other liabilities	81,235	8,234	73,001	Interest rate
Subordinated debentures	9,014	–	9,014	Interest rate
Liabilities not subject to market risk (4)	15,316			
Total liabilities	\$ 1,522,494	\$ 491,655	\$ 1,015,523	
Total equity	92,822			
Total liabilities and equity	\$ 1,615,316			

(1) Traded risk includes positions that are classified or designated as FVTPL and positions whose revaluation gains and losses are reported in revenue. Market risk measures of VaR and SVaR and stress testing are used as risk controls for traded risk.

(2) Non-traded risk includes positions used in the management of IRRBB and other non-trading portfolios. Other material non-trading portfolios include positions from RBC Insurance® and investment securities, net of applicable allowance, not included in IRRBB.

(3) Assets not subject to market risk include physical and other assets.

(4) Liabilities not subject to market risk include payroll related and other liabilities.

Liquidity and funding risk

Liquidity and funding risk (liquidity risk) is the risk that we may be unable to generate sufficient cash or its equivalents in a timely and cost-effective manner to meet our commitments. Liquidity risk arises from mismatches in the timing and value of on-balance sheet and off-balance sheet cash flows.

Our Liquidity Risk Management Framework (LRMF) is designed to ensure that we have sufficient liquidity to satisfy current and prospective commitments in both normal and stressed conditions. There have been no material changes to our LRMF as described in our 2020 Annual Report.

We continue to maintain liquidity and funding that is appropriate for the execution of our strategy. Liquidity risk remains well within our risk appetite.

Commencing in the second quarter of 2020, OSFI announced a series of regulatory measures and provided additional guidance to allow banks to focus on their resilience efforts and to enhance the financial system's stability. These measures contained temporary modifications in limits, including those used for covered bonds. For further details, refer to the Liquidity and funding risk section of our 2020 Annual Report. On April 6, 2021, OSFI announced the unwinding of the temporary increase in the covered bond limit, effective immediately.

Liquidity reserve

Our liquidity reserve consists of available unencumbered liquid assets. Although unused wholesale funding capacity, which is regularly assessed, could be another potential source of liquidity to mitigate stressed conditions, it is excluded in the determination of the liquidity reserve. Similarly, uncommitted and undrawn central bank borrowing facilities that could be accessed subject to satisfying certain preconditions as set by various central banks (e.g., BoC, the Fed, Bank of England, and Bank of France), as well as amounts that qualify as eligible collateral at the Federal Reserve Bank of New York (FRBNY) and Federal Home Loan Bank (FHLB) are also excluded from the determination of the liquidity reserve.

(Millions of Canadian dollars)	As at July 31, 2021				
	Bank-owned liquid assets	Securities received as collateral from securities financing and derivative transactions	Total liquid assets	Encumbered liquid assets	Unencumbered liquid assets
Cash and due from banks	\$ 115,407	\$ –	\$ 115,407	\$ 3,621	\$ 111,786
Interest-bearing deposits with banks	80,389	–	80,389	–	80,389
Securities issued or guaranteed by sovereigns, central banks or multilateral development banks (1)	204,533	319,501	524,034	364,813	159,221
Other securities	109,601	118,946	228,547	120,888	107,659
Other liquid assets (2)	28,078	–	28,078	26,134	1,944
Total liquid assets	\$ 538,008	\$ 438,447	\$ 976,455	\$ 515,456	\$ 460,999

(Millions of Canadian dollars)	As at April 30, 2021				
	Bank-owned liquid assets	Securities received as collateral from securities financing and derivative transactions	Total liquid assets	Encumbered liquid assets	Unencumbered liquid assets
Cash and due from banks	\$ 114,307	\$ –	\$ 114,307	\$ 3,369	\$ 110,938
Interest-bearing deposits with banks	63,438	–	63,438	–	63,438
Securities issued or guaranteed by sovereigns, central banks or multilateral development banks (1)	200,981	305,131	506,112	346,565	159,547
Other securities	98,467	122,165	220,632	124,822	95,810
Other liquid assets (2)	27,227	–	27,227	25,335	1,892
Total liquid assets	\$ 504,420	\$ 427,296	\$ 931,716	\$ 500,091	\$ 431,625

(Millions of Canadian dollars)	As at	
	July 31 2021	April 30 2021
Royal Bank of Canada	\$ 236,148	\$ 240,130
Foreign branches	64,957	55,895
Subsidiaries	159,894	135,600
Total unencumbered liquid assets	\$ 460,999	\$ 431,625

(1) Includes liquid securities issued by provincial governments and U.S. government-sponsored entities working under U.S. Federal government's conservatorship (e.g., Federal National Mortgage Association and Federal Home Loan Mortgage Corporation).

(2) Encumbered liquid assets amount represents cash collateral and margin deposit amounts pledged related to OTC and exchange-traded derivative transactions.

The liquidity reserve is typically most affected by routine flows of client banking activity where liquid asset portfolios adjust to the change in cash balances, and additionally from capital markets activities where business strategies and client flows may also affect the addition or subtraction of liquid assets in the overall calculation of the liquidity reserve. Corporate Treasury also affects liquidity reserves through the management of funding issuances where reserves absorb timing mismatches between debt issuances and deployment into business activities.

Q3 2021 vs. Q2 2021

Total liquid assets increased \$44.7 billion or 5% and total unencumbered liquid assets increased \$29.4 billion or 7% from last quarter, mainly due to increases in deposits with central banks and on-balance sheet securities, reflecting higher wholesale funding and deposit levels.

Asset encumbrance

The table below provides a summary of our on- and off-balance sheet amounts for cash, securities and other assets, distinguishing between those that are encumbered or available for sale or use as collateral in secured funding transactions. Other assets, such as mortgages and credit card receivables, can also be monetized, albeit over longer timeframes than those required for marketable securities. As at July 31, 2021, our unencumbered assets available as collateral comprised 27% of total assets (April 30, 2021 – 26%).

(Millions of Canadian dollars)	As at									
	July 31 2021					April 30 2021				
	Encumbered		Unencumbered			Encumbered		Unencumbered		
	Pledged as collateral	Other (1)	Available as collateral (2)	Other (3)	Total	Pledged as collateral	Other (1)	Available as collateral (2)	Other (3)	Total
Cash and due from banks	\$ –	\$ 3,621	\$ 111,786	\$ –	\$ 115,407	\$ –	\$ 3,369	\$ 110,938	\$ –	\$ 114,307
Interest-bearing deposits with banks	–	–	80,389	–	80,389	–	–	63,438	–	63,438
Securities										
Trading	53,451	–	85,346	3,803	142,600	50,179	–	80,271	3,817	134,267
Investment, net of applicable allowance	12,096	–	125,907	53	138,056	12,075	–	117,291	53	129,419
Assets purchased under reverse repurchase agreements and securities borrowed (4)	435,819	17,953	28,265	6,338	488,375	420,370	17,663	29,668	5,899	473,600
Loans										
Retail										
Mortgage securities	28,801	–	33,100	–	61,901	30,803	–	34,337	–	65,140
Mortgage loans	42,176	–	29,232	237,401	308,809	44,423	–	26,936	221,504	292,863
Non-mortgage loans	2,652	–	8,172	110,356	121,180	3,165	–	9,139	105,923	118,227
Wholesale	–	–	–	210,739	210,739	–	–	–	202,427	202,427
Allowance for loan losses	–	–	–	(4,588)	(4,588)	–	–	–	(5,146)	(5,146)
Segregated fund net assets	–	–	–	2,526	2,526	–	–	–	2,338	2,338
Other										
Derivatives	–	–	–	102,033	102,033	–	–	–	97,236	97,236
Others (5)	26,134	–	1,944	75,220	103,298	25,335	–	1,892	74,076	101,303
Total assets	\$ 601,129	\$ 21,574	\$ 504,141	\$ 743,881	\$ 1,870,725	\$ 586,350	\$ 21,032	\$ 473,910	\$ 708,127	\$ 1,789,419

(1) Includes assets restricted from use to generate secured funding due to legal or other constraints.

(2) Represents assets that are readily available for use as collateral, including NHA MBS, our unencumbered mortgage loans that qualify as eligible collateral at FHLB, as well as loans that qualify as eligible collateral for discount window facility available to us and lodged at the FRBNY.

(3) Other unencumbered assets are not subject to any restrictions on their use to secure funding or as collateral but would not be considered readily available. This also includes loans that could be used to collateralize central bank advances, including those for pledging to the BoC under the expanded eligibility criteria announced in Q2 2020. For further details on programs in support of liquidity and funding announced in fiscal 2020, refer to the Significant developments: COVID-19 section of our 2020 Annual Report.

(4) Includes bank-owned liquid assets and securities received as collateral from off-balance sheet securities financing, derivative transactions, and margin lending. Includes \$18.0 billion (April 30, 2021 – \$17.7 billion) of collateral received through reverse repurchase transactions that cannot be rehypothecated in its current legal form.

(5) The Pledged as collateral amount represents cash collateral and margin deposit amounts pledged related to OTC and exchange-traded derivative transactions.

Funding

Funding strategy

Core funding, comprising capital, longer-term wholesale liabilities and a diversified pool of personal and, to a lesser extent, commercial and institutional deposits, is the foundation of our structural liquidity position.

Deposit and funding profile

As at July 31, 2021, relationship-based deposits, which are the primary source of funding for retail loans and mortgages, were \$755.4 billion or 54% of our total funding (April 30, 2021 – \$732.0 billion or 55%). The remaining portion is comprised of short- and long-term wholesale funding.

Funding for highly liquid assets consists primarily of short-term wholesale funding that reflects the monetization period of those assets. Long-term wholesale funding is used mostly to fund less liquid wholesale assets and to support liquid asset buffers.

Senior long-term debt issued by the bank on or after September 23, 2018, that has an original term greater than 400 days and is marketable, subject to certain exceptions, is subject to the Canadian Bank Recapitalization (Bail-in) regime. Under the Bail-in regime, in circumstances when the Superintendent of Financial Institutions has determined that a bank may no longer be viable, the Governor in Council may, upon a recommendation of the Minister of Finance that he or she is of the opinion that it is in the public interest to do so, grant an order directing the Canada Deposit Insurance Corporation (CDIC) to convert all or a portion of certain shares and liabilities of that bank into common shares. As at July 31, 2021, the notional value of issued and outstanding long-term debt subject to conversion under the Bail-in regime was \$46.8 billion (April 30, 2021 – \$41.8 billion).

For further details on our wholesale funding, refer to the Composition of wholesale funding tables below.

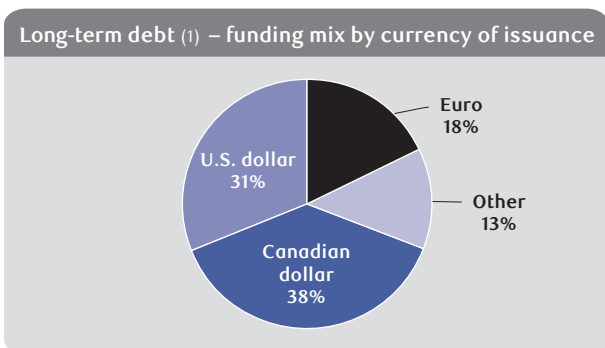
Long-term debt issuance

Our wholesale funding activities are well-diversified by geography, investor segment, instrument, currency, structure and maturity. We maintain an ongoing presence in different funding markets, which allows us to continuously monitor market developments and trends, identify opportunities and risks, and take appropriate and timely actions. We operate long-term debt issuance registered programs. The following table summarizes these programs with their authorized limits by geography.

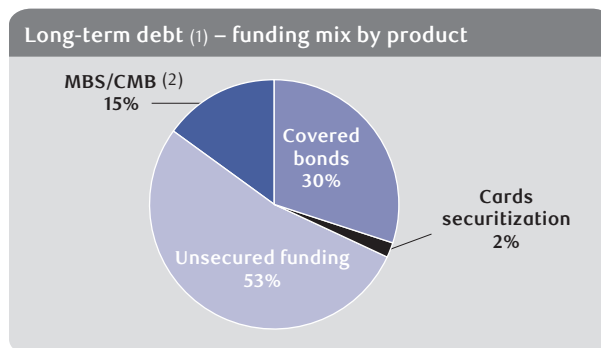
Programs by geography

Canada	U.S.	Europe/Asia
<ul style="list-style-type: none"> Canadian Shelf Program – \$25 billion 	<ul style="list-style-type: none"> U.S. Shelf Program – US\$40 billion 	<ul style="list-style-type: none"> European Debt Issuance Program – US\$40 billion Global Covered Bond Program – €60 billion Japanese Issuance Programs – ¥1 trillion

We also raise long-term funding using Canadian Senior Notes, Canadian National Housing Act MBS, Canada Mortgage Bonds, credit card receivable-backed securities, Kangaroo Bonds (issued in the Australian domestic market by foreign firms) and Yankee Certificates of Deposit (issued in the U.S. domestic market by foreign firms). We continuously evaluate opportunities to expand into new markets and untapped investor segments since diversification expands our wholesale funding flexibility, minimizes funding concentration and dependency, and generally reduces financing costs. As presented in the following charts, our current long-term debt profile is well-diversified by both currency and product. Maintaining competitive credit ratings is also critical to cost-effective funding.



(1) Based on original term to maturity greater than 1 year



(1) Based on original term to maturity greater than 1 year
 (2) Mortgage-backed securities and Canada Mortgage Bonds

The following table provides our composition of wholesale funding based on remaining term to maturity:

Composition of wholesale funding ⁽¹⁾

(Millions of Canadian dollars)	As at July 31, 2021							
	Less than 1 month	1 to 3 months	3 to 6 months	6 to 12 months	Less than 1 year sub-total	1 year to 2 years	2 years and greater	Total
Deposits from banks (2)	\$ 8,625	\$ –	\$ –	\$ –	\$ 8,625	\$ –	\$ –	\$ 8,625
Certificates of deposit and commercial paper	5,142	15,963	23,226	22,873	67,204	225	–	67,429
Asset-backed commercial paper (3)	3,082	2,899	4,094	2,906	12,981	–	–	12,981
Senior unsecured medium-term notes (4)	950	2,440	978	9,057	13,425	9,842	38,882	62,149
Senior unsecured structured notes (5)	62	246	940	1,286	2,534	2,072	6,754	11,360
Mortgage securitization	–	435	355	1,789	2,579	2,699	11,250	16,528
Covered bonds/asset-backed securities (6)	–	3,043	867	3,884	7,794	7,279	21,260	36,333
Subordinated liabilities	–	998	–	190	1,188	165	7,547	8,900
Other (7)	6,433	1,345	428	1,172	9,378	7,550	559	17,487
Total	\$ 24,294	\$ 27,369	\$ 30,888	\$ 43,157	\$ 125,708	\$ 29,832	\$ 86,252	\$ 241,792
Of which:								
– Secured	\$ 9,167	\$ 6,618	\$ 5,637	\$ 8,579	\$ 30,001	\$ 9,978	\$ 33,048	\$ 73,027
– Unsecured	15,127	20,751	25,251	34,578	95,707	19,854	53,204	168,765

(Millions of Canadian dollars)	As at April 30, 2021							
	Less than 1 month	1 to 3 months	3 to 6 months	6 to 12 months	Less than 1 year sub-total	1 year to 2 years	2 years and greater	Total
Deposits from banks (2)	\$ 5,820	\$ 12	\$ –	\$ –	\$ 5,832	\$ –	\$ –	\$ 5,832
Certificates of deposit and commercial paper	4,397	11,634	21,417	24,782	62,230	31	–	62,261
Asset-backed commercial paper (3)	2,578	3,107	4,459	2,568	12,712	–	–	12,712
Senior unsecured medium-term notes (4)	198	3,575	3,356	9,851	16,980	7,070	36,259	60,309
Senior unsecured structured notes (5)	162	338	289	1,461	2,250	1,678	7,423	11,351
Mortgage securitization	–	1,728	437	1,662	3,827	2,568	11,532	17,927
Covered bonds/asset-backed securities (6)	553	1,274	2,997	1,341	6,165	8,453	20,954	35,572
Subordinated liabilities	–	–	999	–	999	242	7,642	8,883
Other (7)	6,445	569	370	640	8,024	8,070	443	16,537
Total	\$ 20,153	\$ 22,237	\$ 34,324	\$ 42,305	\$ 119,019	\$ 28,112	\$ 84,253	\$ 231,384
Of which:								
– Secured	\$ 9,223	\$ 6,376	\$ 8,126	\$ 5,571	\$ 29,296	\$ 11,021	\$ 32,909	\$ 73,226
– Unsecured	10,930	15,861	26,198	36,734	89,723	17,091	51,344	158,158

(1) Excludes bankers' acceptances and repos.

(2) Excludes deposits associated with services we provide to banks (e.g., custody, cash management).

(3) Only includes consolidated liabilities, including our collateralized commercial paper program.

(4) Includes deposit notes.

(5) Includes notes where the payout is tied to movements in foreign exchange, commodities and equities.

(6) Includes credit card and mortgage loans.

(7) Includes tender option bonds (secured) of \$7,185 million (April 30, 2021 – \$7,008 million), bearer deposit notes (unsecured) of \$2,000 million (April 30, 2021 – \$1,259 million), other long-term structured deposits (unsecured) of \$8,302 million (April 30, 2021 – \$8,264 million), and FHLB advances (secured) of \$nil (April 30, 2021 – \$6 million).

Credit ratings

Our ability to access unsecured funding markets and to engage in certain collateralized business activities on a cost-effective basis are primarily dependent upon maintaining competitive credit ratings. Credit ratings and outlooks provided by rating agencies reflect their views and methodologies. Ratings are subject to change, based on a number of factors including, but not limited to, our financial strength, competitive position, liquidity and other factors not completely within our control.

Other than as noted below, there have been no changes to our major credit ratings as disclosed in our 2020 Annual Report.

Credit ratings (1)

	As at August 24, 2021			
	Short-term debt	Legacy senior long-term debt (2)	Senior long-term debt (3)	Outlook
Moody's (4)	P-1	Aa2	A2	stable
Standard & Poor's (5)	A-1+	AA-	A	stable
Fitch Ratings (6)	F1+	AA	AA-	stable
DBRS (7)	R-1 (high)	AA (high)	AA	stable

- (1) Credit ratings are not recommendations to purchase, sell or hold a financial obligation inasmuch as they do not comment on market price or suitability for a particular investor. Ratings are determined by the rating agencies based on criteria established from time to time by them, and are subject to revision or withdrawal at any time by the rating organization.
- (2) Includes senior long-term debt issued prior to September 23, 2018 and senior long-term debt issued on or after September 23, 2018 which is excluded from the Bail-in regime.
- (3) Includes senior long-term debt issued on or after September 23, 2018 which is subject to conversion under the Bail-in regime.
- (4) On November 18, 2020, Moody's affirmed our ratings with a stable outlook.
- (5) On October 28, 2020, Standard & Poor's affirmed our ratings with a stable outlook.
- (6) On July 15, 2021, Fitch Ratings downgraded our legacy senior long-term debt rating to AA from AA+ and our senior long-term debt rating to AA- from AA and revised our ratings outlook to stable from negative.
- (7) On May 14, 2021, DBRS affirmed our ratings with a stable outlook.

Additional contractual obligations for rating downgrades

We are required to deliver collateral to certain counterparties in the event of a downgrade to our current credit rating. The following table provides the additional collateral obligations required at the reporting date in the event of a one-, two- or three-notch downgrade to our credit ratings. These additional collateral obligations are incremental requirements for each successive downgrade and do not represent the cumulative impact of multiple downgrades. The amounts reported change periodically as a result of several factors, including the transfer of trading activity to centrally cleared financial market infrastructures and exchanges, the expiration of transactions with downgrade triggers, the imposition of internal limitations on new agreements to exclude downgrade triggers, as well as normal course mark-to-market. There is no outstanding senior debt issued in the market that contains rating triggers that would lead to early prepayment of principal.

(Millions of Canadian dollars)	As at					
	July 31 2021			April 30 2021		
	One-notch downgrade	Two-notch downgrade	Three-notch downgrade	One-notch downgrade	Two-notch downgrade	Three-notch downgrade
Contractual derivatives funding or margin requirements	\$ 368	\$ 92	\$ 152	\$ 404	\$ 89	\$ 124
Other contractual funding or margin requirements (1)	162	41	–	153	–	3

- (1) Includes Guaranteed Investment Certificates (GICs) issued by our municipal markets business out of New York.

Liquidity Coverage Ratio (LCR)

The LCR is a Basel III metric that measures the sufficiency of high-quality liquid assets (HQLA) available to meet liquidity needs over a 30-day period in an acute stress scenario. The BCBS and OSFI regulatory minimum coverage level for LCR is 100%.

OSFI requires Canadian banks to disclose the LCR using the standard Basel disclosure template and calculated using the average of daily LCR positions during the quarter.

Liquidity coverage ratio common disclosure template ⁽¹⁾

	For the three months ended	
	July 31 2021	
	Total unweighted value (average) ⁽²⁾	Total weighted value (average)
<i>(Millions of Canadian dollars, except percentage amounts)</i>		
High-quality liquid assets		
Total high-quality liquid assets (HQLA)		\$ 341,167
Cash outflows		
Retail deposits and deposits from small business customers, of which:	\$ 355,512	\$ 32,855
<i>Stable deposits</i> ⁽³⁾	125,276	3,758
<i>Less stable deposits</i>	230,236	29,097
Unsecured wholesale funding, of which:	419,878	192,352
<i>Operational deposits (all counterparties) and deposits in networks of cooperative banks</i> ⁽⁴⁾	182,802	43,292
<i>Non-operational deposits</i>	208,707	120,691
<i>Unsecured debt</i>	28,369	28,369
Secured wholesale funding		26,501
Additional requirements, of which:	263,062	62,148
<i>Outflows related to derivative exposures and other collateral requirements</i>	41,010	16,509
<i>Outflows related to loss of funding on debt products</i>	8,160	8,160
<i>Credit and liquidity facilities</i>	213,892	37,479
Other contractual funding obligations ⁽⁵⁾	24,246	24,246
Other contingent funding obligations ⁽⁶⁾	599,062	9,669
Total cash outflows		\$ 347,771
Cash inflows		
Secured lending (e.g., reverse repos)	\$ 258,284	\$ 40,891
Inflows from fully performing exposures	13,532	8,210
Other cash inflows	26,732	26,732
Total cash inflows		\$ 75,833
		Total adjusted value
Total HQLA		\$ 341,167
Total net cash outflows		271,938
Liquidity coverage ratio		125%

	April 30 2021	
	Total adjusted value	
<i>(Millions of Canadian dollars, except percentage amounts)</i>		
Total HQLA	\$	364,160
Total net cash outflows		274,546
Liquidity coverage ratio		133%

- (1) The LCR is calculated in accordance with OSFI's LAR guideline, which, in turn, reflects liquidity-related requirements issued by the BCBS as updated in accordance with the regulatory guidance issued in Q2 2020. The LCR for the quarter ended July 31, 2021 is calculated as an average of 63 daily positions.
- (2) With the exception of other contingent funding obligations, unweighted inflow and outflow amounts are items maturing or callable in 30 days or less. Other contingent funding obligations also include debt securities with remaining maturity greater than 30 days.
- (3) As defined by the BCBS, stable deposits from retail and small business customers are deposits that are insured and are either held in transactional accounts or the bank has an established relationship with the client making the withdrawal unlikely.
- (4) Operational deposits from customers other than retail and small and medium-sized enterprises, are deposits which clients need to keep with the bank in order to facilitate their access and ability to use payment and settlement systems primarily for clearing, custody and cash management activities.
- (5) Other contractual funding obligations primarily include outflows from unsettled securities trades and outflows from obligations related to securities sold short.
- (6) Other contingent funding obligations include outflows related to other off-balance sheet facilities that carry low LCR runoff factors (0% – 5%).

We manage our LCR position within a target range that reflects our liquidity risk tolerance and takes into account business mix, asset composition and funding capabilities. The range is subject to periodic review in light of changes to internal requirements and external developments.

We maintain HQLAs in major currencies with dependable market depth and breadth. Our treasury management practices ensure that the levels of HQLA are actively managed to meet target LCR objectives. Our Level 1 assets, as calculated according to OSFI LAR and the BCBS LCR requirements, represent 89% of total HQLA. These assets consist of cash, placements with central banks and highly rated securities issued or guaranteed by governments, central banks and supranational entities.

LCR captures cash flows from on- and off-balance sheet activities that are either expected or could potentially occur within 30 days in an acute stress scenario. Cash outflows result from the application of withdrawal and non-renewal factors to demand and term deposits, differentiated by client type (wholesale, retail and small- and medium-sized enterprises). Cash outflows also arise from business activities that create contingent funding and collateral requirements, such as repo funding, derivatives, short sales of securities and the extension of credit and liquidity commitments to clients. Cash inflows arise primarily from maturing secured loans, interbank loans and non-HQLA securities.

LCR does not reflect any market funding capacity that we believe would be available in a stress situation. All maturing wholesale debt is assigned 100% outflow in the LCR calculation.

Q3 2021 vs. Q2 2021

The average LCR for the quarter ended July 31, 2021 was 125%, which translates into a surplus of approximately \$69.2 billion, compared to 133% and a surplus of approximately \$89.6 billion in the prior quarter. Average LCR decreased from the prior quarter primarily due to growth in retail and wholesale loans, partially offset by continued growth in client deposits. We expect liquidity levels will continue to be influenced by central bank policy and actions, and we will continue to manage our LCR in reflection of these and other industry-wide developments.

Net Stable Funding Ratio (NSFR)

NSFR is a Basel III metric that measures the sufficiency of available stable funding relative to the amount of required stable funding. The BCBS and OSFI regulatory minimum coverage level for NSFR is 100%.

Available stable funding is defined as the portion of capital and liabilities expected to be reliable over the time horizon considered by the NSFR, which extends to one year. Required stable funding is a function of the liquidity characteristics and residual maturities of the various assets held by the bank as well as those of its off-balance sheet exposures.

Beginning in Q1 2021, OSFI requires Canadian D-SIBs to disclose the NSFR using the standard Basel disclosure template. Amounts presented in this disclosure template are determined in accordance with the requirements of OSFI's Liquidity Adequacy Requirements (LAR) guideline and are not necessarily aligned with the classification requirements prescribed under IFRS.

Net Stable Funding Ratio common disclosure template (1)

(Millions of Canadian dollars, except percentage amounts)	As at July 31, 2021					Weighted value
	Unweighted value by residual maturity (2)					
	No maturity	< 6 months	6 months to < 1 year	≥ 1 year		
Available Stable Funding (ASF) Item						
Capital:	\$ 96,209	\$ –	\$ –	\$ 9,518	\$ 105,727	
Regulatory Capital	96,209	–	–	9,518	105,727	
Other Capital Instruments	–	–	–	–	–	
Retail deposits and deposits from small business customers:	332,888	51,835	22,617	21,536	396,296	
Stable deposits (3)	112,583	25,055	13,225	8,619	151,939	
Less stable deposits	220,305	26,780	9,392	12,917	244,357	
Wholesale funding:	317,382	394,399	52,791	91,392	291,114	
Operational deposits (4)	197,542	–	–	–	98,771	
Other wholesale funding	119,840	394,399	52,791	91,392	192,343	
Liabilities with matching interdependent assets (5)	–	1,562	3,559	25,648	–	
Other liabilities:	38,048		180,085		12,667	
NSFR derivative liabilities			13,809			
All other liabilities and equity not included in the above categories	38,048	153,233	751	12,292	12,667	
Total ASF						\$ 805,804
Required Stable Funding (RSF) Item						
Total NSFR high-quality liquid assets (HQLA)						\$ 38,284
Deposits held at other financial institutions for operational purposes	–	1,864	–	–	–	932
Performing loans and securities:	170,127	269,988	116,734	408,255	565,393	
Performing loans to financial institutions secured by Level 1 HQLA	–	117,760	19,497	2	–	17,290
Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions	3,909	60,864	29,126	15,874	–	42,991
Performing loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, central banks and PSEs, of which:	99,251	73,879	38,511	123,202	–	242,899
With a risk weight of less than or equal to 35% under the Basel II standardized approach for credit risk	–	1,359	1,032	4,057	–	3,833
Performing residential mortgages, of which:	37,022	16,082	29,183	249,630	–	219,245
With a risk weight of less than or equal to 35% under the Basel II standardized approach for credit risk	37,022	16,008	29,085	247,759	–	217,569
Securities that are not in default and do not qualify as HQLA, including exchange-traded equities	29,945	1,403	417	19,547	–	42,968
Assets with matching interdependent liabilities (5)	–	1,562	3,559	25,648	–	–
Other assets:	1,783		234,974		67,674	
Physical traded commodities, including gold	1,783				1,515	
Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs			14,965		–	12,720
NSFR derivative assets			17,046		–	3,237
NSFR derivative liabilities before deduction of variation margin posted			33,315		–	1,666
All other assets not included in the above categories	–	122,196	240	47,212	–	48,536
Off-balance sheet items			635,652			23,085
Total RSF						\$ 695,368
Net Stable Funding Ratio (%)						116%

As at April 30, 2021

(Millions of Canadian dollars, except percentage amounts)	Weighted value
Total ASF	\$ 782,628
Total RSF	663,644
Net Stable Funding Ratio (%)	118%

- (1) The NSFR is calculated in accordance with OSFI's Liquidity Adequacy Requirements (LAR) guideline, which, in turn, reflects liquidity-related requirements issued by the BCBS as updated in accordance with the regulatory guidance issued in fiscal 2020.
- (2) Totals for the following rows encompass the residual maturity categories of less than 6 months, 6 months to less than 1 year, and greater than or equal to 1 year in accordance with the requirements of the common disclosure template prescribed by OSFI: Other liabilities, NSFR derivative liabilities, Other assets, Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs, NSFR derivative assets, NSFR derivative liabilities before deduction of variation margin posted, and Off-balance sheet items.
- (3) As defined by the BCBS, stable deposits from retail and small business customers are deposits that are insured and are either held in transactional accounts or the bank has an established relationship with the client making the withdrawal unlikely.
- (4) Operational deposits from customers other than retail and small and medium-sized enterprises, are deposits which clients need to keep with the bank in order to facilitate their access and ability to use payment and settlement systems primarily for clearing, custody and cash management activities.
- (5) Interdependent assets and liabilities represent National Housing Act Mortgage-Backed Securities (NHA MBS) liabilities, including liabilities arising from transactions involving the Canada Mortgage Bond program and their corresponding encumbered mortgages.

Available stable funding is comprised primarily of a diversified pool of personal and commercial deposits, capital, as well as long-term wholesale liabilities. Required stable funding is driven mainly by the bank's mortgage and loan portfolio, secured loans to financial institutions and to a lesser extent by other less liquid assets. NSFR does not reflect any unused market funding capacity that we believe is available to the bank.

Volume and composition of available stable funding is actively managed to optimize our structural funding position and meet NSFR objectives. Our NSFR is managed in accordance with our comprehensive LRMF.

Q3 2021 vs. Q2 2021

The NSFR as at July 31, 2021 was 116%, which translates into a surplus of approximately \$110.4 billion, compared to 118% and a surplus of approximately \$119.0 billion in the prior quarter. NSFR decreased from the prior quarter primarily due to growth in retail and wholesale loans and an increase in on-balance sheet securities, partially offset by continued growth in client deposits.

Contractual maturities of financial assets, financial liabilities and off-balance sheet items

The following tables provide remaining contractual maturity profiles of all our assets, liabilities, and off-balance sheet items at their carrying value (e.g., amortized cost or fair value) at the balance sheet date. Off-balance sheet items are allocated based on the expiry date of the contract.

Details of contractual maturities and commitments to extend funds are a source of information for the management of liquidity risk. Among other purposes, these details form a basis for modelling a behavioural balance sheet with effective maturities to calculate liquidity risk measures. For further details, refer to the Risk measurement section within the Liquidity and funding risk section of our 2020 Annual Report.

(Millions of Canadian dollars)	As at July 31, 2021									
	Less than 1 month	1 to 3 months	3 to 6 months	6 to 9 months	9 to 12 months	1 year to 2 years	2 years to 5 years	5 years and greater	With no specific maturity	Total
Assets										
Cash and deposits with banks	\$ 193,487	\$ 2	\$ 12	\$ –	\$ –	\$ –	\$ –	\$ –	\$ 2,295	\$ 195,796
Securities										
Trading (1)	63,457	52	26	18	6	27	167	9,748	60,393	133,894
Investment, net of applicable allowance	5,005	7,334	4,540	6,261	5,896	20,942	31,634	55,964	480	138,056
Assets purchased under reverse repurchase agreements and securities borrowed (2)	147,465	66,001	34,950	28,488	18,426	98	–	–	24,468	319,896
Loans, net of applicable allowance	25,944	21,817	25,516	28,659	32,363	136,351	289,018	58,357	80,016	698,041
Other										
Customers' liability under acceptances	12,821	6,558	2	6	–	5	–	–	(67)	19,325
Derivatives	4,316	6,425	8,241	3,565	3,928	9,878	19,018	46,657	5	102,033
Other financial assets	32,929	1,599	1,261	462	139	244	232	2,030	3,220	42,116
Total financial assets	485,424	109,788	74,548	67,459	60,758	167,545	340,069	172,756	170,810	1,649,157
Other non-financial assets	6,374	1,606	178	113	405	1,946	2,227	5,733	25,801	44,383
Total assets	\$ 491,798	\$ 111,394	\$ 74,726	\$ 67,572	\$ 61,163	\$ 169,491	\$ 342,296	\$ 178,489	\$ 196,611	\$ 1,693,540
Liabilities and equity										
Deposits (3)										
Unsecured borrowing	\$ 95,709	\$ 40,390	\$ 47,992	\$ 43,325	\$ 34,473	\$ 23,035	\$ 51,974	\$ 14,731	\$ 647,322	\$ 998,951
Secured borrowing	3,151	4,841	5,255	5,799	3,063	5,792	17,281	6,398	–	51,580
Covered bonds	–	2,309	869	–	2,748	5,413	16,402	6,606	–	34,347
Other										
Acceptances	12,821	6,557	2	6	–	5	–	–	1	19,392
Obligations related to securities sold short	34,760	–	–	–	–	–	–	–	–	34,760
Obligations related to assets sold under repurchase agreements and securities loaned (2)	208,825	32,280	2,064	2,309	4,747	314	–	–	20,626	271,165
Derivatives	4,267	6,195	6,644	3,565	3,158	9,746	19,934	43,640	1	97,150
Other financial liabilities	31,270	790	1,009	471	471	838	2,096	10,294	706	47,945
Subordinated debentures	–	–	–	–	190	110	1,966	6,784	–	9,050
Total financial liabilities	390,803	93,362	63,835	55,475	48,850	45,253	109,653	88,453	668,656	1,564,340
Other non-financial liabilities	1,323	952	5,378	308	210	1,074	1,101	12,908	9,636	32,890
Equity	–	–	–	–	–	–	–	–	96,310	96,310
Total liabilities and equity	\$ 392,126	\$ 94,314	\$ 69,213	\$ 55,783	\$ 49,060	\$ 46,327	\$ 110,754	\$ 101,361	\$ 774,602	\$ 1,693,540
Off-balance sheet items										
Financial guarantees	\$ 625	\$ 1,496	\$ 2,397	\$ 3,051	\$ 2,994	\$ 1,975	\$ 3,121	\$ 1,048	\$ 47	\$ 16,754
Commitments to extend credit	3,184	4,677	11,696	12,505	23,595	55,029	157,562	15,313	4,127	287,688
Other credit-related commitments	791	958	1,639	1,570	1,671	329	716	39	91,551	99,264
Other commitments	10	11	18	20	21	72	167	307	607	1,233
Total off-balance sheet items	\$ 4,610	\$ 7,142	\$ 15,750	\$ 17,146	\$ 28,281	\$ 57,405	\$ 161,566	\$ 16,707	\$ 96,332	\$ 404,939

(1) Trading debt securities classified as FVTPL have been included in the less than 1 month category as there is no expectation to hold these assets to their contractual maturity.

(2) Open reverse repo and repo contracts, which have no set maturity date and are typically short term, have been included in the with no specific maturity category.

(3) A major portion of relationship-based deposits are repayable on demand or at short notice on a contractual basis while, in practice, these customer balances form a core base for our operations and liquidity needs, as explained in the preceding Deposit and funding profile section.

As at April 30, 2021										
(Millions of Canadian dollars)	Less than 1 month	1 to 3 months	3 to 6 months	6 to 9 months	9 to 12 months	1 year to 2 years	2 years to 5 years	5 years and greater	With no specific maturity	Total
Assets										
Cash and deposits with banks	\$ 175,499	\$ 1	\$ –	\$ 11	\$ –	\$ –	\$ –	\$ –	\$ 2,234	\$ 177,745
Securities										
Trading (1)	65,080	19	119	26	17	33	123	9,124	51,192	125,733
Investment, net of applicable allowance	3,912	8,150	3,775	6,419	6,658	18,326	30,174	51,528	477	129,419
Assets purchased under reverse repurchase agreements and securities borrowed (2)	146,475	67,298	26,165	26,156	23,732	98	–	–	18,107	308,031
Loans, net of applicable allowance	25,055	19,390	24,518	26,872	30,801	129,541	283,080	56,331	77,923	673,511
Other										
Customers' liability under acceptances	13,047	5,867	–	2	9	5	–	–	(113)	18,817
Derivatives	6,051	7,294	4,211	6,625	2,667	10,055	17,942	42,384	7	97,236
Other financial assets	32,147	1,097	1,277	275	354	209	218	2,014	3,247	40,838
Total financial assets	467,266	109,116	60,065	66,386	64,238	158,267	331,537	161,381	153,074	1,571,330
Other non-financial assets	6,225	1,544	(52)	181	430	2,523	2,107	5,695	25,333	43,986
Total assets	\$ 473,491	\$ 110,660	\$ 60,013	\$ 66,567	\$ 64,668	\$ 160,790	\$ 333,644	\$ 167,076	\$ 178,407	\$ 1,615,316
Liabilities and equity										
Deposits (3)										
Unsecured borrowing	\$ 75,344	\$ 43,258	\$ 41,162	\$ 37,211	\$ 41,639	\$ 20,250	\$ 50,477	\$ 13,782	\$ 623,949	\$ 947,072
Secured borrowing	3,218	6,422	6,478	2,817	4,307	6,068	17,603	6,408	–	53,321
Covered bonds	–	1,274	2,289	852	–	5,986	14,416	8,113	–	32,930
Other										
Acceptances	13,056	5,868	–	–	9	–	–	–	9	18,942
Obligations related to securities sold short	31,817	–	–	–	–	–	–	–	–	31,817
Obligations related to assets sold under repurchase agreements and securities loaned (2)	203,947	26,430	9,171	171	1,992	2,956	–	–	12,382	257,049
Derivatives	5,904	7,208	4,290	5,433	3,282	8,789	18,616	38,879	1	92,402
Other financial liabilities	32,815	997	813	425	546	843	2,044	10,069	679	49,231
Subordinated debentures	–	–	–	–	–	188	2,042	6,784	–	9,014
Total financial liabilities	366,101	91,457	64,203	46,909	51,775	45,080	105,198	84,035	637,020	1,491,778
Other non-financial liabilities	1,089	1,088	103	3,604	1,148	991	966	12,348	9,379	30,716
Equity	–	–	–	–	–	–	–	–	92,822	92,822
Total liabilities and equity	\$ 367,190	\$ 92,545	\$ 64,306	\$ 50,513	\$ 52,923	\$ 46,071	\$ 106,164	\$ 96,383	\$ 739,221	\$ 1,615,316
Off-balance sheet items										
Financial guarantees	\$ 590	\$ 2,171	\$ 2,093	\$ 2,430	\$ 3,086	\$ 1,297	\$ 3,744	\$ 673	\$ 72	\$ 16,156
Commitments to extend credit	7,562	8,277	8,427	12,091	19,606	51,777	150,273	16,844	3,190	278,047
Other credit-related commitments	2,178	1,104	1,366	1,648	1,529	169	843	4	91,266	100,107
Other commitments	15	11	17	18	18	64	180	350	557	1,230
Total off-balance sheet items	\$ 10,345	\$ 11,563	\$ 11,903	\$ 16,187	\$ 24,239	\$ 53,307	\$ 155,040	\$ 17,871	\$ 95,085	\$ 395,540

(1) Trading debt securities classified as FVTPL have been included in the less than 1 month category as there is no expectation to hold these assets to their contractual maturity.

(2) Open reverse repo and repo contracts, which have no set maturity date and are typically short term, have been included in the with no specific maturity category.

(3) A major portion of relationship-based deposits are repayable on demand or at short notice on a contractual basis while, in practice, these customer balances form a core base for our operations and liquidity needs, as explained in the preceding Deposit and funding profile section.

Capital management

We continue to manage our capital in accordance with our Capital Management Framework as described in our 2020 Annual Report. In addition, we continue to monitor for new regulatory capital developments, including OSFI guidance relating to the BCBS Basel III reforms and guidance issued in response to the COVID-19 pandemic, in order to ensure timely and accurate compliance with these requirements as disclosed in the Capital management section in our 2020 Annual Report, as updated below.

OSFI expects Canadian banks to meet the Basel III targets for CET1, Tier 1 and Total capital ratios. Under Basel III, banks select from two main approaches, the Standardized Approach (SA) or the Internal Ratings Based (IRB) Approach, to calculate their minimum regulatory capital required to support credit, market and operational risks.

The Financial Stability Board (FSB) has re-designated us as a Global Systemically Important Bank (G-SIB). This designation requires us to maintain a higher loss absorbency requirement (common equity as a percentage of risk-weighted assets) of 1% consistent with the D-SIB requirement.

On March 13, 2020, OSFI announced a decrease in the Domestic Stability Buffer (DSB) from 2.25% to 1.0% of total RWA in response to the disruption related to the COVID-19 pandemic and in support of a D-SIB's ability to supply additional credit to the economy. At that time, OSFI also committed to not increasing the DSB for a period of 18 months. On June 17, 2021, OSFI announced that the DSB will be increased from 1.0% to 2.5% of total RWA effective October 31, 2021. The 2.5% reflects the highest DSB requirement under OSFI capital requirements. On December 14, 2020, OSFI reaffirmed its expectation, as initially announced in March 2020, that all banks should not increase their dividend payments and should stop any share buybacks, and clarified that certain exceptions for non-recurring special dividends may be acceptable, subject to approval. To date, OSFI continues to maintain this restriction.

In Q2 2020, OSFI announced a series of regulatory adjustments and guidance, and continues, as needed, to release regulations implementing, clarifying or updating certain aspects or requirements, to support the financial and operational resilience of the banking sector in response to the ongoing COVID-19 pandemic. Such measures and guidance to date include, but are not limited to:

- Regulatory adjustments to RWA, including temporary measures to reduce stressed VaR (SVaR) multipliers from three to one and the permanent exclusion of Funding Valuation Adjustment hedges from market risk.
 - Effective May 1, 2021, OSFI unwound the temporary measures to reduce SVaR multipliers, requiring banks to revert to pre-pandemic levels.
- Modifications for increases in expected credit loss provisions on CET1 capital by applying a 70% after-tax exclusion rate for growth in Stage 1 and Stage 2 allowances between Q1 2020 and the respective quarters of fiscal 2020. The exclusion rate was reduced to the current 50% in fiscal 2021 and will be reduced to 25% in fiscal 2022. These modifications are not available for a financial institution's IRB portfolio in any quarter in which the financial institution has a shortfall in allowances.
- Leverage ratio exposure amounts are to exclude central bank reserves and sovereign-issued securities that qualify as HQLA until December 31, 2021.
 - On August 12, 2021, OSFI announced that the exclusion of sovereign-issued securities that qualify as HQLA from the leverage ratio exposure measure will not extend beyond December 31, 2021 and that central bank reserves will continue to be excluded from the leverage ratio exposure measure.
- Reduction in the current regulatory capital floor for financial institutions using the IRB approach from 75% to 70% of RWA under the SA. The reduced floor factor will remain in place until the adoption of the Basel III reforms in Q1 2023.
- Clarification of the applicable capital and leverage ratio treatment of certain government relief programs. For further details, refer to the Capital management section of our 2020 Annual Report, as updated below:
 - On January 27, 2021, OSFI provided guidance on the associated capital treatment of the BDC Highly Affected Sectors Credit Availability Program (HASCAP), noting that the risk-weighting should be in accordance with existing regulatory guidelines. In addition, the full amount of the loan is required to be included in the leverage ratio calculation.

OSFI has assessed and will continue to assess the need for these relief measures. We have incorporated the effective adjustments and guidance, as applicable, into our results and in our on-going capital planning activities.

The following table provides a summary of OSFI's current and announced future regulatory target ratios under Basel III and Pillar 2 requirements. We are in compliance with all current capital and leverage requirements imposed by OSFI:

Basel III capital and leverage ratios	OSFI regulatory target requirements for large banks under Basel III					RBC capital and leverage ratios as at July 31, 2021	Domestic Stability Buffer (3)	Minimum including Capital Buffers, D-SIB/G-SIB surcharge and Domestic Stability Buffer as at July 31, 2021	Minimum including Capital Buffers, D-SIB/G-SIB surcharge and Domestic Stability Buffer as at October 31, 2021 (3)
	Minimum	Capital Buffers (1)	Minimum including Capital Buffers	D-SIB/G-SIB Surcharge (2)	Minimum including Capital Buffers and D-SIB/G-SIB surcharge (2)				
Common Equity Tier 1	4.5%	2.5%	7.0%	1.0%	8.0%	13.6%	1.0%	9.0%	10.5%
Tier 1 capital	6.0%	2.5%	8.5%	1.0%	9.5%	15.0%	1.0%	10.5%	12.0%
Total capital	8.0%	2.5%	10.5%	1.0%	11.5%	16.7%	1.0%	12.5%	14.0%
Leverage ratio	3.0%	n.a.	3.0%	n.a.	3.0%	5.0%	n.a.	3.0%	3.0%

(1) The capital buffers include the capital conservation buffer and the countercyclical capital buffer as prescribed by OSFI.

(2) A capital surcharge, equal to the higher of our D-SIB surcharge and the BCBS's G-SIB surcharge, is applicable to risk-weighted capital.

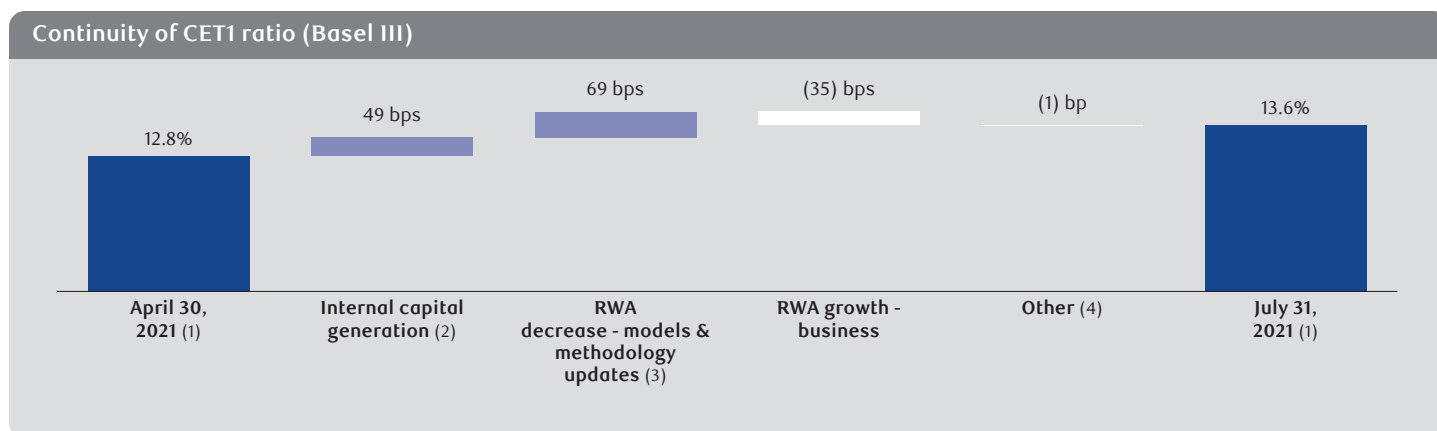
(3) Effective March 13, 2020, in accordance with the revised guidance noted above, OSFI lowered the DSB to 1.0% of RWA from 2.25%. On December 8, 2020, OSFI reaffirmed the DSB at 1.0% of total RWA. The DSB will be increased from 1.0% to 2.5% of total RWA effective October 31, 2021. We do not anticipate any challenges in complying with the increased DSB requirement.

The following table provides details on our regulatory capital, RWA, and capital and leverage ratios. Our capital position remains strong and our capital and leverage ratios remain well above OSFI regulatory targets.

	As at		
	July 31 2021	April 30 2021	October 31 2020
(Millions of Canadian dollars, except percentage amounts and as otherwise noted)			
Capital (1)			
CET1 capital	\$ 73,822	\$ 70,970	\$ 68,082
Tier 1 capital	81,218	78,139	74,005
Total capital	90,736	87,636	84,928
Risk-weighted assets (RWA) used in calculation of capital ratios (1)			
Credit risk	\$ 436,070	\$ 452,857	\$ 448,821
Market risk	34,149	30,617	27,374
Operational risk	72,828	72,133	70,047
Total RWA	\$ 543,047	\$ 555,607	\$ 546,242
Capital ratios and Leverage ratio (1)			
CET1 ratio	13.6%	12.8%	12.5%
Tier 1 capital ratio	15.0%	14.1%	13.5%
Total capital ratio	16.7%	15.8%	15.5%
Leverage ratio	5.0%	5.0%	4.8%
Leverage ratio exposure (billions)	\$ 1,633.2	\$ 1,576.3	\$ 1,552.9

(1) Capital, RWA, and capital ratios are calculated using OSFI's CAR guideline and the Leverage ratio is calculated using OSFI's Leverage Requirements (LR) guideline as updated in accordance with the regulatory guidance issued by OSFI in response to the COVID-19 pandemic. Both the CAR guideline and LR guideline are based on the Basel III framework.

Q3 2021 vs. Q2 2021



(1) Represents rounded figures.

(2) Internal capital generation of \$2.7 billion which represents Net income available to shareholders, less common and preferred shares dividends and distributions on other equity instruments.

(3) Includes 80 bps relating to the model parameter updates discussed below, 3 bps of other market risk model changes and (14) bps relating to the increase in SVaR multipliers.

(4) Includes (5) bps relating to capital modification associated with Stage 1 and Stage 2 allowances and 4 bps decrease in RWA from net credit upgrades.

Our CET1 ratio was 13.6%, up 80 bps from last quarter, primarily due to a decrease in RWA reflecting the impact of model parameter updates, as well as internal capital generation, partially offset by increases in RWA largely driven by business growth.

RWA decreased by \$12.6 billion, mainly driven by the impact of model parameter updates to increase the threshold for determining small business clients subject to retail capital treatment, as permitted under regulatory capital requirements, and to recalibrate probability of default parameters for the remaining borrowers in our wholesale portfolio. These factors were partially offset by business growth primarily in wholesale lending, including loan underwriting commitments, residential mortgages and personal lending, and an increase in SVaR multipliers reflecting the unwinding of temporary measures introduced by OSFI in response to the COVID-19 pandemic, as discussed above.

Our Tier 1 capital ratio of 15.0% was up 90 bps, reflecting the factors noted above under the CET1 ratio and the favourable impact of the issuance of Limited Recourse Capital Notes (LRCNs), partially offset by the redemption of preferred shares.

Our Total capital ratio of 16.7% was up 90 bps, reflecting the factors noted above under the Tier 1 capital ratio.

Our Leverage ratio of 5.0% was unchanged, as internal capital generation was offset by higher leverage exposures.

Leverage exposures increased by \$56.9 billion, mainly due to business growth primarily in loans, interest-bearing deposits with banks, and securities, and the impact of foreign exchange translation, partially offset by higher regulatory modifications for central bank reserves and sovereign-issued securities qualifying as HQLA.

Selected capital management activity

The following table provides our selected capital management activity:

(Millions of Canadian dollars, except number of shares)	For the three months ended July 31, 2021		For the nine months ended July 31, 2021		
	Issuance or redemption date	Number of shares (000s)	Amount	Number of shares (000s)	Amount
Tier 1 capital					
Common shares activity					
Issued in connection with share-based compensation plans (1)		311	\$ 24	1,131	\$ 85
Issuance of LRCN Series 2 (2), (3), (4)	November 2, 2020	–	–	1,250	1,250
Redemption of preferred shares, Series BK (3)	May 24, 2021	(29,000)	(725)	(29,000)	(725)
Issuance of LRCN Series 3 (2), (3), (4)	June 8, 2021	1,000	1,000	1,000	1,000
Tier 2 capital					
Redemption of January 20, 2026 subordinated debentures (3), (4)	January 20, 2021		\$ –		\$ (1,500)
Issuance of January 28, 2033 subordinated debentures (3), (4)	January 28, 2021		–		1,000

(1) Amounts include cash received for stock options exercised during the period and fair value adjustments to stock options.

(2) For the LRCNs, the number of shares represent the number of notes issued.

(3) For further details, refer to Note 9 of our Condensed Financial Statements.

(4) Non-Viability Contingent Capital (NVCC) instruments.

On February 27, 2020, we announced a normal course issuer bid (NCIB) to purchase up to 20 million of our common shares. This NCIB expired on March 1, 2021, with 0.4 million common shares repurchased and cancelled at a cost of \$39 million. In accordance with OSFI's announcement of its expectation that share buybacks should be stopped, we ceased the repurchase of our common shares effective March 13, 2020.

As at July 31, 2021, we do not have an active NCIB.

We determine the amount and timing of purchases under an NCIB, subject to prior consultation with OSFI. Purchases may be made through the TSX, the NYSE and other designated exchanges and alternative Canadian trading systems. The price paid for repurchased shares is the prevailing market price at the time of acquisition.

On November 2, 2020, we issued \$1,250 million of LRCN Series 2, at a price per note of \$1,000. The LRCN Series 2 bear interest at a fixed rate of 4.0% per annum until February 24, 2026, and thereafter at a rate per annum, reset every fifth year, equal to the 5-Year Government of Canada Yield plus 3.617% until maturity on February 24, 2081.

On January 20, 2021, we redeemed all \$1,500 million of our outstanding NVCC 3.31% subordinated debentures due on January 20, 2026 for 100% of their principal amount plus interest accrued to, but excluding, the redemption date.

On January 28, 2021, we issued \$1,000 million of NVCC subordinated debentures. The notes bear interest at a fixed rate of 1.67% per annum until January 28, 2028, and at the three-month Canadian Dollar Offered Rate plus 0.55% thereafter until their maturity on January 28, 2033.

On May 24, 2021, we redeemed all 29 million of our issued and outstanding Non-Cumulative 5-Year Rate Reset First Preferred Shares Series BK at a price of \$25 per share.

On June 8, 2021, we issued \$1,000 million of LRCN Series 3, at a price per note of \$1,000. The LRCN Series 3 bear interest at a fixed rate of 3.65% per annum until November 24, 2026, and thereafter at a rate per annum, reset every fifth year, equal to the 5-Year Government of Canada Yield plus 2.665% until maturity on November 24, 2081.

On August 24, 2021, we redeemed all 30 million of our issued and outstanding Non-Cumulative 5-Year Rate Reset First Preferred Shares Series BM at a price of \$25 per share.

Selected share data ⁽¹⁾

(Millions of Canadian dollars, except number of shares and as otherwise noted)	As at July 31, 2021		
	Number of shares (000s)	Amount	Dividends declared per share
Common shares issued	1,424,992	\$ 17,713	\$ 1.08
Treasury shares – common shares	(529)	(57)	
Common shares outstanding	1,424,463	\$ 17,656	
Stock options and awards			
Outstanding	7,861		
Exercisable	3,460		
First preferred shares issued			
Non-cumulative Series AZ ^{(2), (3)}	20,000	\$ 500	\$ 0.23
Non-cumulative Series BB ^{(2), (3)}	20,000	500	0.23
Non-cumulative Series BD ^{(2), (3)}	24,000	600	0.20
Non-cumulative Series BF ^{(2), (3)}	12,000	300	0.19
Non-cumulative Series BH ⁽³⁾	6,000	150	0.31
Non-cumulative Series BI ⁽³⁾	6,000	150	0.31
Non-cumulative Series BJ ⁽³⁾	6,000	150	0.33
Non-cumulative Series BM ^{(2), (3)}	30,000	750	0.34
Non-cumulative Series BO ^{(2), (3)}	14,000	350	0.30
Non-cumulative Series C-2 ⁽⁴⁾	15	23	US\$ 16.88
Other equity instruments issued			
Limited recourse capital notes Series 1 ^{(2), (3), (5), (6)}	1,750	1,750	4.50%
Limited recourse capital notes Series 2 ^{(2), (3), (5), (6)}	1,250	1,250	4.00%
Limited recourse capital notes Series 3 ^{(2), (3), (5), (6)}	1,000	1,000	3.65%
Preferred shares and other equity instruments issued	142,015	7,473	
Treasury instruments – preferred shares and other equity instruments	(440)	(57)	
Preferred shares and other equity instruments outstanding	141,575	\$ 7,416	
Dividends on common shares		\$ 1,539	
Dividends on preferred shares and distributions on other equity instruments ⁽⁷⁾		55	

(1) For further details about our capital management activity, refer to Note 9 of our Condensed Financial Statements.

(2) Dividend rate will reset every five years.

(3) NVCC instruments.

(4) Represents 615,400 depositary shares relating to preferred shares Series C-2. Each depositary share represents one-fortieth interest in a share of Series C-2.

(5) For LRCNs, the number of shares represent the number of notes issued and the dividends declared per share represent the annual interest rate percentage applicable to the notes issued as at the reporting date.

(6) In connection with the issuance of LRCN Series 1, on July 28, 2020, we issued \$1,750 million of First Preferred Shares Series BQ (Series BQ); in connection the issuance of LRCN Series 2, on November 2, 2020, we issued \$1,250 million of First Preferred Shares Series BR (Series BR); and in connection with the issuance of LRCN Series 3, on June 8, 2021, we issued \$1,000 million of First Preferred Shares Series BS (Series BS). The Series BQ, BR and BS preferred shares were issued at a price of \$1,000 per share and were issued to a consolidated trust to be held as trust assets in connection with the LRCN structure. For further details, refer to Note 20 of our 2020 Annual Consolidated Financial Statements and Note 9 of our Condensed Financial Statements.

(7) Excludes distributions to non-controlling interests.

As at August 20, 2021, the number of outstanding common shares was 1,424,719,142, net of treasury shares held of 316,431, and the number of stock options and awards was 7,817,954.

NVCC provisions require the conversion of the capital instrument into a variable number of common shares in the event that OSFI deems a bank to be non-viable or a federal or provincial government in Canada publicly announces that a bank has accepted or agreed to accept a capital injection. If a NVCC trigger event were to occur, our NVCC capital instruments as at July 31, 2021, which were the preferred shares Series AZ, BB, BD, BF, BH, BI, BJ, BM, BO, LRCN Series 1, LRCN Series 2, LRCN Series 3 and subordinated debentures due on September 29, 2026, January 27, 2026, July 25, 2029, December 23, 2029, June 30, 2030 and January 28, 2033 would be converted into common shares pursuant to an automatic conversion formula with a conversion price based on the greater of: (i) a contractual floor price of \$5.00, and (ii) the current market price of our common shares at the time of the trigger event (10-day weighted average). Based on a floor price of \$5.00 and including an estimate for accrued dividends and interest, these NVCC capital instruments would convert into a maximum of 3,988 million common shares, in aggregate, which would represent a dilution impact of 73.68% based on the number of common shares outstanding as at July 31, 2021.

Total loss absorbing capacity (TLAC)

On April 18, 2018, OSFI released its guideline on Total Loss Absorbing Capacity (TLAC), which applies to Canadian D-SIBs as part of the Federal Government's Bail-in regime. The guideline is consistent with the TLAC standard released on November 9, 2015 by the Financial Stability Board for institutions designated as G-SIBs, but tailored to the Canadian context. The TLAC requirement is intended to address the sufficiency of a systemically important bank'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, which allow conversion in whole or in part into common shares under the CDIC Act and meet all of the eligibility criteria under the guideline.

TLAC requirements established 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 Capital Adequacy Requirements (CAR) guideline, and the TLAC leverage ratio, which builds on the leverage ratio described in OSFI's Leverage Requirements guideline. On April 16, 2020, OSFI notified systemically important banks of the requirement to maintain a minimum TLAC ratio of 22.5%, which includes the DSB currently set at 1.0%. On November 1, 2021, we expect the TLAC ratio requirement will be 24% reflecting the recently announced higher DSB requirement discussed above. OSFI continues to require a TLAC leverage ratio of 6.75%. We began issuing bail-in eligible debt in the fourth quarter of 2018 and this has contributed to increasing our TLAC ratio. We expect our TLAC ratio to increase through normal course refinancing of maturing unsecured term debt.

Regulatory developments

Basel III reforms

On June 18, 2021, OSFI launched an industry consultation on proposed regulatory changes to the treatment of credit valuation adjustments (CVA) and market risk hedges of other valuation adjustments of over-the-counter derivatives referred to as XVA. The proposed changes are a continuation of OSFI's industry consultation announced in March 2021 to incorporate the latest and final round of Basel III reforms into its capital, leverage and related disclosure guidelines for banks. We expect to continue to engage with OSFI on the domestic implementation of the Basel III reforms and are taking appropriate steps to ensure required adoption readiness based on guidance provided to date. The revised guidelines noted above will be effective in Q1 2024.

Global systemically important banks (G-SIBs)

On August 13, 2021, OSFI released revised G-SIB disclosure requirements which take into consideration the 2022 revised G-SIB assessment methodology incorporating a new trading volume indicator and inclusion of insurance activities for certain indicators. The new disclosure requirements are effective for us in Q1 2022 and we are well positioned to comply with the new requirements. In addition, we are currently assessing the impact of the revised G-SIB framework and we do not anticipate any material impact to our current G-SIB surcharge loss absorbency requirement of 1%.

Accounting and control matters

Summary of accounting policies and estimates

Our Condensed Financial Statements are presented in compliance with International Accounting Standard (IAS) 34 *Interim Financial Reporting*. Our significant accounting policies are described in Note 2 of our audited 2020 Annual Consolidated Financial Statements and our Q3 2021 Condensed Financial Statements.

Application of critical accounting judgments, estimates and assumptions

The COVID-19 pandemic has continued to evolve and the economic environment in which we operate could be subject to sustained volatility, which could continue to impact our financial results, as the duration of the COVID-19 pandemic, the effectiveness of steps undertaken by governments and central banks in response to the COVID-19 pandemic, the potential impact of vaccine hesitancy and efficacy against new variants of COVID-19, and global vaccine supply and availability remains uncertain. Certain critical judgments are particularly complex in the current uncertain environment and significantly different amounts could be reported under different conditions or assumptions. We continue to monitor and assess the impacts of the COVID-19 pandemic on our critical accounting judgments, estimates and assumptions, which are described in Note 2 of our audited 2020 Annual Consolidated Financial Statements.

Changes in accounting policies and disclosures

Changes in accounting policies

During the first quarter of 2021, we adopted the revised *Conceptual Framework*. The amendments had no material impact on our Consolidated Financial Statements.

During the first quarter of 2021, we early adopted the Phase 2 amendments to IFRS 9 *Financial Instruments*, IAS 39 *Financial Instruments: Recognition and Measurement*, IFRS 7 *Financial Instruments: Disclosures*, IFRS 4 *Insurance contracts*, and IFRS 16 *Leases (Amendments)*. Refer to Note 2 of our Condensed Financial Statements for details of these changes.

Future changes in accounting policies and disclosures

Future changes in accounting policies and disclosures that are not yet effective for us are described in Note 2 of our audited 2020 Annual Consolidated Financial Statements.

Controls and procedures

Disclosure controls and procedures

As of July 31, 2021, management evaluated, under the supervision of and with the participation of the President and Chief Executive Officer and the Chief Financial Officer, the effectiveness of our disclosure controls and procedures as defined under rules adopted by the U.S. SEC. Based on that evaluation, the President and Chief Executive Officer and the Chief Financial Officer concluded that our disclosure controls and procedures were effective as of July 31, 2021.

Internal control over financial reporting

No changes were made in our internal control over financial reporting during the quarter ended July 31, 2021 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Related party transactions

In the ordinary course of business, we provide normal banking services and operational services, and enter into other transactions with associated and other related corporations, including our joint venture entities, on terms similar to those offered to non-related parties. We grant loans to directors, officers and other employees at rates normally accorded to preferred clients. In addition, we offer deferred share and other plans to non-employee directors, executives and certain other key employees. For further information, refer to Notes 12 and 26 of our audited 2020 Annual Consolidated Financial Statements.

EDTF recommendations index

We aim to present transparent, high-quality risk disclosures by providing disclosures in our 2020 Annual Report, Q3 2021 Report to Shareholders (RTS), Supplementary Financial Information package (SFI), and Pillar 3 Report, in accordance with recommendations from the Financial Stability Board's (FSB) Enhanced Disclosure Task Force (EDTF). Information within the SFI and Pillar 3 Report is not and should not be considered incorporated by reference into our Q3 2021 Report to Shareholders.

The following index summarizes our disclosure by EDTF recommendation:

Type of Risk	Recommendation	Disclosure	Location of disclosure		
			RTS page	Annual Report page	SFI page
General	1	Table of contents for EDTF risk disclosure	49	117	1
	2	Define risk terminology and measures		56-61, 222-223	-
	3	Top and emerging risks		53-55	-
	4	New regulatory ratios	43-45	96-101	-
Risk governance, risk management and business model	5	Risk management organization		56-61	-
	6	Risk culture		57-61	-
	7	Risk in the context of our business activities		104	-
	8	Stress testing		58-59, 73	-
Capital adequacy and risk-weighted assets (RWA)	9	Minimum Basel III capital ratios and Domestic systemically important bank surcharge	44	97-101	-
	10	Composition of capital and reconciliation of the accounting balance sheet to the regulatory balance sheet		-	*
	11	Flow statement of the movements in regulatory capital		-	20
	12	Capital strategic planning		96-101	-
	13	RWA by business segments		-	21
	14	Analysis of capital requirement, and related measurement model information		62-65	*
	15	RWA credit risk and related risk measurements		-	*
16	Movement of risk-weighted assets by risk type		-	21	
Liquidity	17	Basel back-testing		58, 62	32
	18	Quantitative and qualitative analysis of our liquidity reserve	34	80-81, 85-86	-
Funding	19	Encumbered and unencumbered assets by balance sheet category, and contractual obligations for rating downgrades	35,38	81, 84	-
	20	Maturity analysis of consolidated total assets, liabilities and off-balance sheet commitments analyzed by remaining contractual maturity at the balance sheet date	42-43	86-87	-
	21	Sources of funding and funding strategy	35-37	81-83	-
Market risk	22	Relationship between the market risk measures for trading and non-trading portfolios and the balance sheet	32-33	77-78	-
	23	Decomposition of market risk factors	29-31	73-76	-
	24	Market risk validation and back-testing		73	-
	25	Primary risk management techniques beyond reported risk measures and parameters		73-76	-
Credit risk	26	Bank's credit risk profile	22-28	61-72, 165-172	22-32,*
		Quantitative summary of aggregate credit risk exposures that reconciles to the balance sheet	67-73	111-116	*
	27	Policies for identifying impaired loans		63-65, 106-107, 136-139	-
	28	Reconciliation of the opening and closing balances of impaired loans and impairment allowances during the year		-	24,29
	29	Quantification of gross notional exposure for OTC derivatives or exchange-traded derivatives		66	33
Other	30	Credit risk mitigation, including collateral held for all sources of credit risk		64-65	*
	31	Other risk types		89-96	-
	32	Publicly known risk events		92-93, 210-211	-

* These disclosure requirements are satisfied or partially satisfied by disclosures provided in our Pillar 3 Report for the quarter ended July 31, 2021 and for the year ended October 31, 2020.

Interim Condensed Consolidated Financial Statements (unaudited)

Interim Condensed Consolidated Balance Sheets (unaudited)

(Millions of Canadian dollars)	As at	
	July 31 2021	October 31 2020
Assets		
Cash and due from banks	\$ 115,407	\$ 118,888
Interest-bearing deposits with banks	80,389	39,013
Securities		
Trading	133,894	136,071
Investment, net of applicable allowance (Note 4)	138,056	139,743
	271,950	275,814
Assets purchased under reverse repurchase agreements and securities borrowed	319,896	313,015
Loans (Note 5)		
Retail	491,890	457,976
Wholesale	210,739	208,655
	702,629	666,631
Allowance for loan losses (Note 5)	(4,588)	(5,639)
	698,041	660,992
Segregated fund net assets	2,526	1,922
Other		
Customers' liability under acceptances	19,325	18,507
Derivatives	102,033	113,488
Premises and equipment	7,576	7,934
Goodwill	10,925	11,302
Other intangibles	4,490	4,752
Other assets	60,982	58,921
	205,331	214,904
Total assets	\$ 1,693,540	\$ 1,624,548
Liabilities and equity		
Deposits (Note 6)		
Personal	\$ 358,500	\$ 343,052
Business and government	680,413	624,311
Bank	45,965	44,522
	1,084,878	1,011,885
Segregated fund net liabilities	2,526	1,922
Other		
Acceptances	19,392	18,618
Obligations related to securities sold short	34,760	29,285
Obligations related to assets sold under repurchase agreements and securities loaned	271,165	274,231
Derivatives	97,150	109,927
Insurance claims and policy benefit liabilities	12,496	12,215
Other liabilities	65,813	69,831
	500,776	514,107
Subordinated debentures (Note 9)	9,050	9,867
Total liabilities	1,597,230	1,537,781
Equity attributable to shareholders		
Preferred shares and other equity instruments (Note 9)	7,416	5,945
Common shares (Note 9)	17,656	17,499
Retained earnings	68,951	59,806
Other components of equity	2,196	3,414
	96,219	86,664
Non-controlling interests	91	103
Total equity	96,310	86,767
Total liabilities and equity	\$ 1,693,540	\$ 1,624,548

The accompanying notes are an integral part of these Interim Condensed Consolidated Financial Statements.

Interim Condensed Consolidated Statements of Income (unaudited)

(Millions of Canadian dollars, except per share amounts)	For the three months ended		For the nine months ended	
	July 31 2021	July 31 2020	July 31 2021	July 31 2020
Interest and dividend income (Note 3)				
Loans	\$ 5,439	\$ 5,603	\$ 16,242	\$ 17,898
Securities	1,184	1,681	3,677	5,153
Assets purchased under reverse repurchase agreements and securities borrowed	291	617	1,002	4,118
Deposits and other	83	55	210	251
	6,997	7,956	21,131	27,420
Interest expense (Note 3)				
Deposits and other	1,278	1,838	4,178	7,195
Other liabilities	625	917	1,875	4,174
Subordinated debentures	42	62	137	226
	1,945	2,817	6,190	11,595
Net interest income	5,052	5,139	14,941	15,825
Non-interest income				
Insurance premiums, investment and fee income	1,754	2,212	4,099	4,403
Trading revenue	179	623	1,080	1,015
Investment management and custodial fees	1,830	1,489	5,244	4,524
Mutual fund revenue	1,095	915	3,109	2,751
Securities brokerage commissions	356	341	1,188	1,119
Service charges	465	430	1,383	1,386
Underwriting and other advisory fees	700	570	2,037	1,741
Foreign exchange revenue, other than trading	246	246	827	779
Card service revenue	278	259	831	758
Credit fees	412	296	1,112	960
Net gains on investment securities	8	11	125	67
Share of profit in joint ventures and associates	47	20	96	57
Other	334	369	1,245	704
	7,704	7,781	22,376	20,264
Total revenue	12,756	12,920	37,317	36,089
Provision for credit losses (Notes 4 and 5)	(540)	675	(526)	3,924
Insurance policyholder benefits, claims and acquisition expense	1,304	1,785	2,859	3,222
Non-interest expense				
Human resources (Note 7)	4,111	4,032	12,551	11,665
Equipment	492	469	1,472	1,399
Occupancy	387	415	1,191	1,229
Communications	227	233	652	735
Professional fees	329	337	934	945
Amortization of other intangibles	320	325	957	943
Other	554	569	1,584	1,784
	6,420	6,380	19,341	18,700
Income before income taxes	5,572	4,080	15,643	10,243
Income taxes	1,276	879	3,485	2,052
Net income	\$ 4,296	\$ 3,201	\$ 12,158	\$ 8,191
Net income attributable to:				
Shareholders	\$ 4,292	\$ 3,197	\$ 12,151	\$ 8,185
Non-controlling interests	4	4	7	6
	\$ 4,296	\$ 3,201	\$ 12,158	\$ 8,191
Basic earnings per share (in dollars) (Note 10)	\$ 2.97	\$ 2.20	\$ 8.40	\$ 5.61
Diluted earnings per share (in dollars) (Note 10)	2.97	2.20	8.39	5.60
Dividends per common share (in dollars)	1.08	1.08	3.24	3.21

The accompanying notes are an integral part of these Interim Condensed Consolidated Financial Statements.

Interim Condensed Consolidated Statements of Comprehensive Income (unaudited)

(Millions of Canadian dollars)	For the three months ended		For the nine months ended	
	July 31 2021	July 31 2020	July 31 2021	July 31 2020
Net income	\$ 4,296	\$ 3,201	\$ 12,158	\$ 8,191
Other comprehensive income (loss), net of taxes				
Items that will be reclassified subsequently to income:				
Net change in unrealized gains (losses) on debt securities and loans at fair value through other comprehensive income				
Net unrealized gains (losses) on debt securities and loans at fair value through other comprehensive income	70	749	360	(57)
Provision for credit losses recognized in income	(21)	(1)	(8)	22
Reclassification of net losses (gains) on debt securities and loans at fair value through other comprehensive income to income	(4)	(48)	(106)	(121)
	45	700	246	(156)
Foreign currency translation adjustments				
Unrealized foreign currency translation gains (losses)	931	(2,112)	(3,703)	1,236
Net foreign currency translation gains (losses) from hedging activities	(367)	716	1,460	(588)
Reclassification of losses (gains) on foreign currency translation to income	2	(21)	(5)	(21)
Reclassification of losses (gains) on net investment hedging activities to income	(1)	21	(1)	21
	565	(1,396)	(2,249)	648
Net change in cash flow hedges				
Net gains (losses) on derivatives designated as cash flow hedges	(190)	88	606	(1,189)
Reclassification of losses (gains) on derivatives designated as cash flow hedges to income	95	(113)	173	(13)
	(95)	(25)	779	(1,202)
Items that will not be reclassified subsequently to income:				
Remeasurements of employee benefit plans (Note 7)	76	(554)	1,795	(566)
Net fair value change due to credit risk on financial liabilities designated at fair value through profit or loss	24	(664)	(12)	(111)
Net gains (losses) on equity securities designated at fair value through other comprehensive income	(1)	3	(2)	24
	99	(1,215)	1,781	(653)
Total other comprehensive income (loss), net of taxes	614	(1,936)	557	(1,363)
Total comprehensive income (loss)	\$ 4,910	\$ 1,265	\$ 12,715	\$ 6,828
Total comprehensive income attributable to:				
Shareholders	\$ 4,904	\$ 1,264	\$ 12,714	\$ 6,819
Non-controlling interests	6	1	1	9
	\$ 4,910	\$ 1,265	\$ 12,715	\$ 6,828

The income tax effect on the Interim Condensed Consolidated Statements of Comprehensive Income is shown in the table below.

(Millions of Canadian dollars)	For the three months ended		For the nine months ended	
	July 31 2021	July 31 2020	July 31 2021	July 31 2020
Income taxes on other comprehensive income				
Net unrealized gains (losses) on debt securities and loans at fair value through other comprehensive income	\$ 30	\$ 164	\$ 28	\$ 72
Provision for credit losses recognized in income	(7)	2	(1)	5
Reclassification of net losses (gains) on debt securities and loans at fair value through other comprehensive income to income	(2)	(16)	(25)	(42)
Unrealized foreign currency translation gains (losses)	–	4	2	5
Net foreign currency translation gains (losses) from hedging activities	(126)	241	494	(205)
Reclassification of losses (gains) on net investment hedging activities to income	–	7	–	7
Net gains (losses) on derivatives designated as cash flow hedges	(66)	31	217	(426)
Reclassification of losses (gains) on derivatives designated as cash flow hedges to income	34	(40)	62	(4)
Remeasurements of employee benefit plans	29	(196)	637	(198)
Net fair value change due to credit risk on financial liabilities designated at fair value through profit or loss	9	(237)	(4)	(39)
Net gains (losses) on equity securities designated at fair value through other comprehensive income	3	4	2	9
Total income tax expenses (recoveries)	\$ (96)	\$ (36)	\$ 1,412	\$ (816)

The accompanying notes are an integral part of these Interim Condensed Consolidated Financial Statements.

Interim Condensed Consolidated Statements of Changes in Equity (unaudited)

	For the three months ended July 31, 2021											
	Preferred shares and other equity instruments	Common shares	Treasury – preferred shares and other equity instruments	Treasury – common shares	Retained earnings	FVOCI securities and loans	Foreign currency translation	Cash flow hedges	Total other components of equity	Equity attributable to shareholders	Non-controlling interests	Total equity
(Millions of Canadian dollars)	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Balance at beginning of period	7,198	17,689	(7)	9	66,163	62	1,826	(205)	1,683	92,735	87	92,822
Changes in equity												
Issues of share capital and other equity instruments	1,000	24	–	–	(2)	–	–	–	–	1,022	–	1,022
Common shares purchased for cancellation	–	–	–	–	–	–	–	–	–	–	–	–
Redemption of preferred shares and other equity instruments	(725)	–	–	–	–	–	–	–	–	(725)	–	(725)
Sales of treasury shares and other equity instruments	–	–	243	1,180	–	–	–	–	–	1,423	–	1,423
Purchases of treasury shares and other equity instruments	–	–	(293)	(1,246)	–	–	–	–	–	(1,539)	–	(1,539)
Share-based compensation awards	–	–	–	–	–	–	–	–	–	–	–	–
Dividends on common shares	–	–	–	–	(1,539)	–	–	–	–	(1,539)	–	(1,539)
Dividends on preferred shares and distributions on other equity instruments	–	–	–	–	(55)	–	–	–	–	(55)	(1)	(56)
Other	–	–	–	–	(7)	–	–	–	–	(7)	(1)	(8)
Net income	–	–	–	–	4,292	–	–	–	–	4,292	4	4,296
Total other comprehensive income (loss), net of taxes	–	–	–	–	99	45	563	(95)	513	612	2	614
Balance at end of period	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
	7,473	17,713	(57)	(57)	68,951	107	2,389	(300)	2,196	96,219	91	96,310

	For the three months ended July 31, 2020											
	Preferred shares and other equity instruments	Common shares	Treasury – preferred shares and other equity instruments	Treasury – common shares	Retained earnings	FVOCI securities and loans	Foreign currency translation	Cash flow hedges	Total other components of equity	Equity attributable to shareholders	Non-controlling interests	Total equity
(Millions of Canadian dollars)	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Balance at beginning of period	5,698	17,592	1	(75)	57,466	(823)	6,259	(1,183)	4,253	84,935	105	85,040
Changes in equity												
Issues of share capital and other equity instruments	1,750	18	–	–	(4)	–	–	–	–	1,764	–	1,764
Common shares purchased for cancellation	–	–	–	–	–	–	–	–	–	–	–	–
Redemption of preferred shares and other equity instruments	–	–	–	–	–	–	–	–	–	–	–	–
Sales of treasury shares and other equity instruments	–	–	25	839	–	–	–	–	–	864	–	864
Purchases of treasury shares and other equity instruments	–	–	(27)	(893)	–	–	–	–	–	(920)	–	(920)
Share-based compensation awards	–	–	–	–	(1)	–	–	–	–	(1)	–	(1)
Dividends on common shares	–	–	–	–	(1,538)	–	–	–	–	(1,538)	–	(1,538)
Dividends on preferred shares and distributions on other equity instruments	–	–	–	–	(65)	–	–	–	–	(65)	–	(65)
Other	–	–	–	–	(35)	–	–	–	–	(35)	–	(35)
Net income	–	–	–	–	3,197	–	–	–	–	3,197	4	3,201
Total other comprehensive income (loss), net of taxes	–	–	–	–	(1,215)	700	(1,393)	(25)	(718)	(1,933)	(3)	(1,936)
Balance at end of period	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
	7,448	17,610	(1)	(129)	57,805	(123)	4,866	(1,208)	3,535	86,268	106	86,374

	For the nine months ended July 31, 2021																							
	Preferred shares and other equity instruments	Common shares	Treasury – preferred shares and other equity instruments	Treasury – common shares	Retained earnings	FVOCI securities and loans	Foreign currency translation	Cash flow hedges	Total other components of equity	Equity attributable to shareholders	Non-controlling interests	Total equity												
(Millions of Canadian dollars)	\$	5,948	\$	17,628	\$	(3)	\$	(129)	\$	59,806	\$	(139)	\$	4,632	\$	(1,079)	\$	3,414	\$	86,664	\$	103	\$	86,767
Balance at beginning of period																								
Changes in equity																								
Issues of share capital and other equity instruments		2,250		85						(5)										2,330				2,330
Common shares purchased for cancellation		–		–						–										–				–
Redemption of preferred shares and other equity instruments		(725)		–						–										(725)				(725)
Sales of treasury shares and other equity instruments		–		–		442		3,122		–										3,564				3,564
Purchases of treasury shares and other equity instruments		–		–		(496)		(3,050)		–										(3,546)				(3,546)
Share-based compensation awards		–		–		–		–		(4)										(4)				(4)
Dividends on common shares		–		–		–		–		(4,618)										(4,618)				(4,618)
Dividends on preferred shares and distributions on other equity instruments		–		–		–		–		(189)										(189)				(192)
Other		–		–		–		–		29										29				19
Net income		–		–		–		–		12,151										12,151				12,158
Total other comprehensive income (loss), net of taxes		–		–		–		–		1,781		246								779		(6)		557
Balance at end of period	\$	7,473	\$	17,713	\$	(57)	\$	(57)	\$	68,951	\$	107	\$	2,389	\$	(300)	\$	2,196	\$	96,219	\$	91	\$	96,310

For the nine months ended July 31, 2020

	For the nine months ended July 31, 2020																							
	Preferred shares and other equity instruments	Common shares	Treasury – preferred shares and other equity instruments	Treasury – common shares	Retained earnings	FVOCI securities and loans	Foreign currency translation	Cash flow hedges	Total other components of equity	Equity attributable to shareholders	Non-controlling interests	Total equity												
(Millions of Canadian dollars)	\$	5,706	\$	17,645	\$	1	\$	(58)	\$	55,874	\$	33	\$	4,221	\$	(6)	\$	4,248	\$	83,416	\$	102	\$	83,518
Adjusted balance at beginning of period																								
Changes in equity																								
Issues of share capital and other equity instruments		1,750		62						(4)										1,808				1,808
Common shares purchased for cancellation		–		(97)						(717)										(814)				(814)
Redemption of preferred shares and other equity instruments		(8)		–						–										(8)				(8)
Sales of treasury shares and other equity instruments		–		–		88		4,010		–										4,098				4,098
Purchases of treasury shares and other equity instruments		–		–		(90)		(4,081)		–										(4,171)				(4,171)
Share-based compensation awards		–		–		–		–		(1)										(1)				(1)
Dividends on common shares		–		–		–		–		(4,572)										(4,572)				(4,572)
Dividends on preferred shares and distributions on other equity instruments		–		–		–		–		(194)										(194)				(198)
Other		–		–		–		–		(113)										(113)				(114)
Net income		–		–		–		–		8,185										8,185				8,191
Total other comprehensive income (loss), net of taxes		–		–		–		–		(653)		(156)								(1,202)		3		(1,363)
Balance at end of period	\$	7,448	\$	17,610	\$	(1)	\$	(129)	\$	57,805	\$	(123)	\$	4,866	\$	(1,208)	\$	3,535	\$	86,268	\$	106	\$	86,374

The accompanying notes are an integral part of these Interim Condensed Consolidated Financial Statements.

Interim Condensed Consolidated Statements of Cash Flows (unaudited)

(Millions of Canadian dollars)	For the three months ended		For the nine months ended	
	July 31 2021	July 31 2020	July 31 2021	July 31 2020
Cash flows from operating activities				
Net income	\$ 4,296	\$ 3,201	\$ 12,158	\$ 8,191
Adjustments for non-cash items and others				
Provision for credit losses	(540)	675	(526)	3,924
Depreciation	323	326	955	985
Deferred income taxes	31	(266)	817	(680)
Amortization and impairment of other intangibles	333	326	972	953
Net changes in investments in joint ventures and associates	(45)	(19)	(93)	(54)
Losses (Gains) on investment securities	(8)	(65)	(131)	(163)
Losses (Gains) on disposition of businesses	–	–	(26)	8
Adjustments for net changes in operating assets and liabilities				
Insurance claims and policy benefit liabilities	387	1,038	281	1,020
Net change in accrued interest receivable and payable	(173)	301	(532)	(28)
Current income taxes	197	484	870	(470)
Derivative assets	(4,797)	(16,571)	11,455	(55,818)
Derivative liabilities	4,748	10,769	(12,777)	56,936
Trading securities	(8,161)	(9,377)	2,182	915
Loans, net of securitizations	(23,972)	17,258	(35,952)	(40,469)
Assets purchased under reverse repurchase agreements and securities borrowed	(11,865)	17,319	(6,881)	(1,254)
Obligations related to assets sold under repurchase agreements and securities loaned	14,116	(4,837)	(3,066)	47,182
Obligations related to securities sold short	2,943	(3,506)	5,475	1,772
Deposits, net of securitizations	51,555	7,692	72,923	132,148
Brokers and dealers receivable and payable	315	188	(383)	2,541
Other	(2,775)	3,836	3,445	(16,962)
Net cash from (used in) operating activities	26,908	28,772	51,166	140,677
Cash flows from investing activities				
Change in interest-bearing deposits with banks	(16,951)	7,749	(41,369)	(2,303)
Proceeds from sales and maturities of investment securities	23,799	27,712	87,109	80,293
Purchases of investment securities	(30,930)	(41,642)	(92,695)	(120,375)
Net acquisitions of premises and equipment and other intangibles	(614)	(540)	(1,539)	(2,043)
Proceeds from dispositions	–	–	78	–
Net cash from (used in) investing activities	(24,696)	(6,721)	(48,416)	(44,428)
Cash flows from financing activities				
Issuance of subordinated debentures	–	1,250	1,000	2,750
Repayment of subordinated debentures	–	(1,000)	(1,500)	(3,000)
Issue of common shares, net of issuance costs	23	16	76	55
Common shares purchased for cancellation	–	–	–	(814)
Issue of preferred shares and other equity instruments, net of issuance costs	998	1,746	2,245	1,746
Redemption of preferred shares and other equity instruments	(725)	–	(725)	(8)
Sales of treasury shares and other equity instruments	1,423	864	3,564	4,098
Purchases of treasury shares and other equity instruments	(1,539)	(920)	(3,546)	(4,171)
Dividends paid on shares and distributions paid on other equity instruments	(1,616)	(1,602)	(4,826)	(4,730)
Dividends/distributions paid to non-controlling interests	(1)	–	(3)	(4)
Change in short-term borrowings of subsidiaries	(6)	(1,518)	(14)	13
Repayment of lease liabilities	(160)	(142)	(458)	(438)
Net cash from (used in) financing activities	(1,603)	(1,306)	(4,187)	(4,503)
Effect of exchange rate changes on cash and due from banks	491	(341)	(2,044)	1,125
Net change in cash and due from banks	1,100	20,404	(3,481)	92,871
Cash and due from banks at beginning of period ⁽¹⁾	114,307	98,777	118,888	26,310
Cash and due from banks at end of period ⁽¹⁾	\$ 115,407	\$ 119,181	\$ 115,407	\$ 119,181
Cash flows from operating activities include:				
Amount of interest paid	\$ 1,826	\$ 2,303	\$ 6,121	\$ 10,871
Amount of interest received	6,581	7,634	20,052	26,288
Amount of dividends received	582	831	1,933	2,135
Amount of income taxes paid	927	655	3,201	2,372

(1) We are required to maintain balances with central banks and other regulatory authorities. The total balances were \$2.2 billion as at July 31, 2021 (April 30, 2021 – \$2.2 billion; October 31, 2020 – \$2.5 billion; July 31, 2020 – \$2.7 billion; October 31, 2019 – \$2.6 billion).

The accompanying notes are an integral part of these Interim Condensed Consolidated Financial Statements.

Note 1 General information

Our unaudited Interim Condensed Consolidated Financial Statements (Condensed Financial Statements) are presented in compliance with International Accounting Standard (IAS) 34 Interim Financial Reporting. The Condensed Financial Statements do not include all the information and disclosures required in the annual financial statements and should be read in conjunction with our audited 2020 Annual Consolidated Financial Statements and the accompanying notes included on pages 127 to 220 in our 2020 Annual Report. All amounts are in Canadian dollars, unless otherwise specified. On August 24, 2021, the Board of Directors authorized the Condensed Financial Statements for issue.

Note 2 Summary of significant accounting policies, estimates and judgments

Except as indicated below, the Condensed Financial Statements have been prepared using the same accounting policies and methods used in preparation of our audited 2020 Annual Consolidated Financial Statements. Our significant accounting policies and future changes in accounting policies and disclosures that are not yet effective for us are described in Note 2 of our audited 2020 Annual Consolidated Financial Statements.

Changes in accounting policies

Conceptual Framework for Financial Reporting (Conceptual Framework)

During the first quarter of 2021, we adopted the revised Conceptual Framework, which replaces the previous version of the Conceptual Framework issued in 2010. The Conceptual Framework is not a standard, and does not override the concepts or requirements in any standard. It may be used to develop consistent accounting policies where there is no applicable standard in place. The revisions include a few new concepts, updated definitions and recognition criteria for assets and liabilities and clarifies some important concepts. These amendments had no material impact on our Consolidated Financial Statements.

Interest Rate Benchmark Reform

During the first quarter of 2021, we early adopted the Phase 2 amendments to IFRS 9 *Financial Instruments*, IAS 39 *Financial Instruments: Recognition and Measurement*, IFRS 7 *Financial Instruments: Disclosures*, IFRS 4 *Insurance contracts*, and IFRS 16 *Leases (Amendments)*. The Amendments provide two key reliefs which are applicable to changes undertaken as a direct consequence of the interest rate benchmark reform (the Reform) and where the transition from interbank offered rates (IBORs) to alternative benchmark rates are transacted on an economically equivalent basis:

- For modifications of financial instruments carried at amortized cost resulting from the Reform which are transacted on an economically equivalent basis, the Amendments allow the benchmark interest rate change to be reflected prospectively in the effective interest rate of the instrument rather than as an immediate gain or loss.
- If qualifying criteria are met, hedging relationships that are directly impacted by the Reform would be able to continue hedge accounting upon transition to alternative benchmark interest rates.

Hedge Accounting

Our hedge accounting policies are described in Note 2 and Note 8 of our audited 2020 Annual Consolidated Financial Statements. We apply hedge accounting when the hedge is expected to be highly effective in achieving offsetting changes in fair value or variable cash flows attributable to the hedged risk, both at inception and throughout the hedge term. Where hedge accounting can be applied, a hedge relationship is designated and documented at inception to detail the particular risk management objective and strategy for undertaking the hedge transaction. For changes related to the Reform, hedge documentation will be amended for alternative benchmark interest rate risk, including consequential changes to the description of the hedging instrument(s) and the hedged item(s), and the method for assessing hedge effectiveness without terminating the hedge relationship where the scoping requirements are met.

Fair value hedges

Hedge accounting is applicable when the benchmark interest rate designated as the hedged risk can be separately identified as a component of the interest rate risk inherent in the fixed-rate instrument. Generally, this requirement is met when the benchmark interest rate impacting changes in fair value of the instrument is widely accepted and used. In order for alternative benchmark rates to qualify for fair value hedge accounting, the separately identifiable requirement must be met within 24 months of the first designation of that rate in a hedging relationship. If, subsequently, we reasonably expect that the alternative benchmark interest rate will not be separately identifiable within that timeframe, we will discontinue hedge accounting prospectively.

Cash flow hedges

We apply hedge accounting to groups of similar assets or similar liabilities when individual items in the group share similar risk characteristics, and we treat these items and related derivatives as a single hedging relationship. Where hedged cash flows of some items in the group are changed to reference an alternative benchmark interest rate before other items in the group are changed, the individual hedged items within the group are allocated to a subgroup based on the benchmark interest rate being hedged. Each subgroup would be assessed separately to determine whether it meets the eligibility requirements. If a subgroup fails the eligibility requirements, we would discontinue hedge accounting prospectively for the hedging relationship in its entirety.

Progress in and risks arising from the transition to alternative benchmark interest rates

The transition from IBORs to alternative benchmark interest rates will impact financial instruments referencing IBOR rates for terms that extend beyond December 31, 2021.

On March 5, 2021 the Financial Conduct Authority (FCA), the regulator of the ICE Benchmark Administration (IBA) which administers LIBOR, made an announcement regarding the permanent cessation or loss of representativeness of all 35 LIBOR settings currently published by the IBA. Details related to certain settings to which we are exposed are noted below.

- Publication of the 1-week and 2-month U.S. dollar LIBOR settings will cease immediately after December 31, 2021. Publication of the overnight and 12-month U.S. dollar LIBOR settings will cease immediately after June 30, 2023, while the 1-month, 3-month and 6-month U.S. dollar LIBOR settings will no longer be representative of the underlying market and economic reality they are intended to measure after June 30, 2023. The FCA may consult on requiring the IBA to publish 1-month, 3-month and 6-month USD LIBOR settings after the end of June 2023 on a non-representative “synthetic” basis.
- Publication of the overnight, 1-week, 2-month and 12-month sterling LIBOR settings will cease immediately after December 31, 2021, while the 1-month, 3-month and 6-month sterling LIBOR settings will no longer be representative of the underlying market and economic reality they are intended to measure after December 31, 2021. The FCA will consult on requiring the IBA to publish the 1-month, 3-month and 6-month sterling LIBOR settings after the end of 2021, for an unspecified period of time, on a non-representative “synthetic” basis.

The FCA announcement triggered fallback provisions related to our LIBOR linked products, including certain loans, bonds, and derivatives, and defined the dates of their transition to alternative benchmark rates. The fixed spreads to be used in the transition to the relevant alternative benchmark rate for each LIBOR setting were also defined as a result of the announcement.

The details regarding our transition program related to the Reform are described in Note 2 of our audited 2020 Annual Consolidated Financial Statements. Transition activities are focused on two broad streams of work: (i) developing new alternative risk-free rate linked products, and (ii) converting existing LIBOR based contracts to alternative risk-free rates. Notable transition activities include:

- Our continued incorporation of contractual provisions in new IBOR-based products which provides a means to determine new alternative benchmark rates upon the cessation of IBORs (fallback language).
- The development of new products for clients, including interest-rate derivatives and loans referencing the relevant alternative benchmark interest rates.

Our program timelines are ultimately dependent on broader market acceptance of products that reference the new alternative risk-free rates and our clients’ readiness and ability to adopt the replacement products. Significant matters that we continue to evaluate include client product offerings, short and long-term funding strategies, and our hedging programs. We are following the recommended target dates for cessation of LIBOR-based products provided by our regulators.

Financial instruments that have yet to transition to alternative benchmark interest rates

On March 5, 2021, the final cessation date of certain USD LIBOR settings was revised from December 31, 2021 to June 30, 2023. As a result of the change in cessation date, our significant exposures to USD LIBOR as at November 1, 2020 for non-derivative financial assets, non-derivative financial liabilities, derivative notional and undrawn balances of loan commitments subject to the Reform, that have yet to transition and are maturing after June 30, 2023, were \$57,432 million, \$941 million, \$3,368,307 million and \$82,054 million, respectively.

The tables below show our significant exposures to financial instruments referencing benchmark interest rates subject to the Reform that have yet to transition to alternative benchmark interest rates and are maturing after December 31, 2021 as at November 1, 2020, which represent our opening balances for the annual period ending on October 31, 2021. Changes in our exposures during the quarter did not result in significant changes to the risks arising from transition since November 1, 2020. In the normal course of business, our derivative notional amounts may fluctuate with minimal impact to our IBOR conversion plans.

(Millions of Canadian dollars)	As at November 1, 2020		
	Non-derivative financial assets (1)	Non-derivative financial liabilities (2)	Derivative notional (3)
USD LIBOR	\$ 79,123	\$ 5,135	\$ 4,894,150
GBP LIBOR	7,518	1,227	1,773,893
Other IBOR currencies	324	2,456	263,299
	\$ 86,965	\$ 8,818	\$ 6,931,342
Cross currency swaps			
USD LIBOR – GBP LIBOR	n.a.	n.a.	\$ 384,263
Other combinations	n.a.	n.a.	52,875
	n.a.	n.a.	\$ 437,138
	\$ 86,965	\$ 8,818	\$ 7,368,480

(1) Non-derivative assets represent the drawn outstanding balance of Loans and the fair value of Securities.

(2) Non-derivative liabilities represent Deposits.

(3) The notional amount of derivative instruments excludes cross currency swaps with multiple LIBOR legs, which are presented separately in the Cross currency swaps section of this table.

n.a. not applicable

Note 2 Summary of significant accounting policies, estimates and judgments (continued)

The following table presents the undrawn balances of loan commitments referencing benchmark interest rates subject to the Reform.

(Millions of Canadian dollars)	As at November 1, 2020
Authorized and committed undrawn commitments	
USD LIBOR	\$ 136,725
GBP LIBOR	7,533
Other IBOR currencies	1,370
	\$ 145,628

We continue to manage significant exposures to benchmarks that have no announced plans for cessation or further reform, including the Canadian Dollar Offered Rate (CDOR), EURO Interbank Offered Rate (EURIBOR) and Australian Bank Bill Swap Rate (BBSW), which are excluded from the tables above.

Note 3 Fair value of financial instruments**Carrying value and fair value of financial instruments**

The following tables provide a comparison of the carrying values and fair values for financial instruments classified or designated as fair value through profit or loss (FVTPL) and fair value through other comprehensive income (FVOCI). Embedded derivatives are presented on a combined basis with the host contracts. Refer to Note 2 and Note 3 of our audited 2020 Annual Consolidated Financial Statements for a description of the valuation techniques and inputs used in the fair value measurement of our financial instruments. There have been no significant changes to our determination of fair value during the quarter.

(Millions of Canadian dollars)	As at July 31, 2021							
	Carrying value and fair value				Carrying value		Fair value	
	Financial instruments classified as FVTPL	Financial instruments designated as FVTPL	Financial instruments classified as FVOCI	Financial instruments designated as FVOCI	Financial instruments measured at amortized cost	Financial instruments measured at amortized cost	Total carrying amount	Total fair value
Financial assets								
Interest-bearing deposits with banks	\$ –	\$ 53,500	\$ –	\$ –	\$ 26,889	\$ 26,889	\$ 80,389	\$ 80,389
Securities								
Trading	123,809	10,085	–	–	–	–	133,894	133,894
Investment, net of applicable allowance	–	–	71,038	505	66,513	66,979	138,056	138,522
	123,809	10,085	71,038	505	66,513	66,979	271,950	272,416
Assets purchased under reverse repurchase agreements and securities borrowed	278,378	–	–	–	41,518	41,518	319,896	319,896
Loans, net of applicable allowance								
Retail	–	252	270	–	488,721	493,629	489,243	494,151
Wholesale	8,559	2,074	836	–	197,329	199,006	208,798	210,475
	8,559	2,326	1,106	–	686,050	692,635	698,041	704,626
Other								
Derivatives	102,033	–	–	–	–	–	102,033	102,033
Other assets (1)	4,230	–	–	–	57,170	57,170	61,400	61,400
Financial liabilities								
Deposits								
Personal	\$ 291	\$ 18,392			\$ 339,817	\$ 340,072	\$ 358,500	\$ 358,755
Business and government (2)	883	125,163			554,367	556,063	680,413	682,109
Bank (3)	–	12,721			33,244	33,249	45,965	45,970
	1,174	156,276			927,428	929,384	1,084,878	1,086,834
Other								
Obligations related to securities sold short	34,760	–			–	–	34,760	34,760
Obligations related to assets sold under repurchase agreements and securities loaned	–	248,196			22,969	22,969	271,165	271,165
Derivatives	97,150	–			–	–	97,150	97,150
Other liabilities (4)	24	155			61,920	61,921	62,099	62,100
Subordinated debentures	–	–			9,050	9,274	9,050	9,274

As at October 31, 2020																
(Millions of Canadian dollars)	Carrying value and fair value				Carrying value		Fair value		Total carrying amount	Total fair value						
	Financial instruments classified as FVTPL	Financial instruments designated as FVTPL	Financial instruments classified as FVOCI	Financial instruments designated as FVOCI	Financial instruments measured at amortized cost	Financial instruments measured at amortized cost	Financial instruments measured at amortized cost	Financial instruments measured at amortized cost								
Financial assets																
Interest-bearing deposits with banks																
	\$	–	\$	21,603	\$	–	\$	–	\$	17,410	\$	17,410	\$	39,013	\$	39,013
Securities																
Trading		126,027		10,044		–		–		–		–		136,071		136,071
Investment, net of applicable allowance		–		–		81,395		525		57,823		58,627		139,743		140,547
		126,027		10,044		81,395		525		57,823		58,627		275,814		276,618
Assets purchased under reverse repurchase agreements and securities borrowed																
		264,394		–		–		–		48,621		48,621		313,015		313,015
Loans, net of applicable allowance																
Retail		–		253		260		–		454,429		462,884		454,942		463,397
Wholesale		6,197		2,363		744		–		196,746		198,753		206,050		208,057
		6,197		2,616		1,004		–		651,175		661,637		660,992		671,454
Other																
Derivatives		113,488		–		–		–		–		–		113,488		113,488
Other assets (1)		3,414		–		–		–		57,065		57,065		60,479		60,479
Financial liabilities																
Deposits																
Personal	\$	104	\$	17,096					\$	325,852	\$	324,804	\$	343,052	\$	342,004
Business and government (2)		389		107,466						516,456		518,501		624,311		626,356
Bank (3)		–		18,015						26,507		26,518		44,522		44,533
		493		142,577						868,815		869,823		1,011,885		1,012,893
Other																
Obligations related to securities sold short		29,285		–						–		–		29,285		29,285
Obligations related to assets sold under repurchase agreements and securities loaned		–		255,922						18,309		18,309		274,231		274,231
Derivatives		109,927		–						–		–		109,927		109,927
Other liabilities (4)		80		86						65,712		65,719		65,878		65,885
Subordinated debentures		–		–						9,867		10,071		9,867		10,071

(1) Includes Customers' liability under acceptances and financial instruments recognized in Other assets.

(2) Business and government deposits include deposits from regulated deposit-taking institutions other than banks.

(3) Bank deposits refer to deposits from regulated banks and central banks.

(4) Includes Acceptances and financial instruments recognized in Other liabilities.

Note 3 Fair value of financial instruments (continued)

Fair value of assets and liabilities measured at fair value on a recurring basis and classified using the fair value hierarchy

(Millions of Canadian dollars)	As at									
	July 31, 2021					October 31, 2020				
	Fair value measurements using			Netting adjustments	Fair value	Fair value measurements using			Netting adjustments	Fair value
Level 1	Level 2	Level 3	Level 1			Level 2	Level 3			
Financial assets										
Interest-bearing deposits with banks	\$ –	\$ 53,500	\$ –	\$ –	\$ 53,500	\$ –	\$ 21,603	\$ –	\$ –	\$ 21,603
Securities										
Trading										
Debt issued or guaranteed by:										
Canadian government (1)										
Federal	9,075	2,399	–	–	11,474	12,773	3,012	–	–	15,785
Provincial and municipal	–	11,634	–	–	11,634	–	11,562	–	–	11,562
U.S. federal, state, municipal and agencies (1)	192	21,145	29	–	21,366	1,508	35,029	44	–	36,581
Other OECD government (2)	2,863	3,285	–	–	6,148	3,085	3,380	–	–	6,465
Mortgage-backed securities (1)	–	7	–	–	7	–	39	–	–	39
Asset-backed securities										
Non-CDO securities (3)	–	711	2	–	713	–	526	2	–	528
Corporate debt and other debt	–	22,135	24	–	22,159	–	21,464	30	–	21,494
Equities	56,018	2,917	1,458	–	60,393	39,795	2,561	1,261	–	43,617
	68,148	64,233	1,513	–	133,894	57,161	77,573	1,337	–	136,071
Investment										
Debt issued or guaranteed by:										
Canadian government (1)										
Federal	829	1,429	–	–	2,258	647	1,894	–	–	2,541
Provincial and municipal	–	3,154	–	–	3,154	–	3,233	–	–	3,233
U.S. federal, state, municipal and agencies (1)	–	31,433	–	–	31,433	160	38,364	–	–	38,524
Other OECD government	–	5,811	–	–	5,811	–	7,345	–	–	7,345
Mortgage-backed securities (1)	–	2,414	21	–	2,435	–	2,343	27	–	2,370
Asset-backed securities										
CDO	–	7,331	–	–	7,331	–	7,414	–	–	7,414
Non-CDO securities	–	615	–	–	615	–	854	–	–	854
Corporate debt and other debt	–	17,847	154	–	18,001	–	18,954	160	–	19,114
Equities	42	144	319	–	505	38	152	335	–	525
	871	70,178	494	–	71,543	845	80,553	522	–	81,920
Assets purchased under reverse repurchase agreements and securities borrowed	–	278,378	–	–	278,378	–	264,394	–	–	264,394
Loans	–	10,936	1,055	–	11,991	–	8,747	1,070	–	9,817
Other										
Derivatives										
Interest rate contracts	–	39,287	392	–	39,679	1	53,720	501	–	54,222
Foreign exchange contracts	–	43,614	66	–	43,680	–	39,246	57	–	39,303
Credit derivatives	–	496	–	–	496	–	463	–	–	463
Other contracts	2,388	17,003	14	–	19,405	4,458	16,767	36	–	21,261
Valuation adjustments	–	(795)	8	–	(787)	–	(1,112)	8	–	(1,104)
Total gross derivatives	2,388	99,605	480	–	102,473	4,459	109,084	602	–	114,145
Netting adjustments	–	–	–	(440)	(440)	–	–	–	(657)	(657)
Total derivatives	2,388	99,605	480	(440)	102,033	4,459	109,084	602	(657)	113,488
Other assets	1,437	2,793	–	–	4,230	1,154	2,207	53	–	3,414
	\$ 72,844	\$ 579,623	\$ 3,542	\$ (440)	\$ 655,569	\$ 63,619	\$ 564,161	\$ 3,584	\$ (657)	\$ 630,707
Financial liabilities										
Deposits										
Personal	\$ –	\$ 18,572	\$ 111	\$ –	\$ 18,683	\$ –	\$ 17,061	\$ 139	\$ –	\$ 17,200
Business and government	–	126,046	–	–	126,046	–	107,855	–	–	107,855
Bank	–	12,721	–	–	12,721	–	18,015	–	–	18,015
Other										
Obligations related to securities sold short	14,572	20,188	–	–	34,760	12,484	16,801	–	–	29,285
Obligations related to assets sold under repurchase agreements and securities loaned	–	248,196	–	–	248,196	–	255,922	–	–	255,922
Derivatives										
Interest rate contracts	–	33,623	1,015	–	34,638	–	46,723	1,089	–	47,812
Foreign exchange contracts	–	42,131	31	–	42,162	–	38,210	35	–	38,245
Credit derivatives	–	742	–	–	742	–	531	–	–	531
Other contracts	2,687	16,912	398	–	19,997	5,734	18,041	337	–	24,112
Valuation adjustments	–	58	(7)	–	51	–	(84)	(32)	–	(116)
Total gross derivatives	2,687	93,466	1,437	–	97,590	5,734	103,421	1,429	–	110,584
Netting adjustments	–	–	–	(440)	(440)	–	–	–	(657)	(657)
Total derivatives	2,687	93,466	1,437	(440)	97,150	5,734	103,421	1,429	(657)	109,927
Other liabilities	186	(14)	7	–	179	118	10	38	–	166
	\$ 17,445	\$ 519,175	\$ 1,555	\$ (440)	\$ 537,735	\$ 18,336	\$ 519,085	\$ 1,606	\$ (657)	\$ 538,370

(1) As at July 31, 2021, residential and commercial mortgage-backed securities (MBS) included in all fair value levels of trading securities were \$12,914 million and \$nil (October 31, 2020 – \$20,520 million and \$nil), respectively, and in all fair value levels of investment securities were \$9,538 million and \$2,268 million (October 31, 2020 – \$9,487 million and \$2,137 million), respectively.

(2) Organisation for Economic Co-operation and Development (OECD).

(3) Collateralized debt obligations (CDO).

Fair value measurements using significant unobservable inputs (Level 3 Instruments)

A financial instrument is classified as Level 3 in the fair value hierarchy if one or more of its unobservable inputs may significantly affect the measurement of its fair value. In preparing the financial statements, appropriate levels for these unobservable input parameters are chosen so that they are consistent with prevailing market evidence or management judgment. Due to the unobservable nature of the prices or rates, there may be uncertainty about the valuation of these Level 3 financial instruments.

During the three months ended July 31, 2021, there were no significant changes made to the valuation techniques and ranges and weighted averages of unobservable inputs used in the determination of fair value of Level 3 financial instruments. As at July 31, 2021, the impacts of adjusting one or more of the unobservable inputs by reasonably possible alternative assumptions did not change significantly from the impacts disclosed in our 2020 Annual Consolidated Financial Statements.

Changes in fair value measurement for instruments measured on a recurring basis and categorized in Level 3

(Millions of Canadian dollars)	For the three months ended July 31, 2021								
	Fair value at beginning of period	Gains (losses) included in earnings	Gains (losses) included in OCI (1)	Purchases (issuances)	Settlement (sales) and other (2)	Transfers into Level 3	Transfers out of Level 3	Fair value at end of period	Gains (losses) included in earnings for positions still held
Assets									
Securities									
Trading									
Debt issued or guaranteed by:									
U.S. state, municipal and agencies	\$ 33	\$ –	\$ 1	\$ –	\$ (5)	\$ –	\$ –	\$ 29	\$ –
Asset-backed securities									
Non-CDO securities	2	–	–	–	–	–	–	2	–
Corporate debt and other debt	18	–	–	5	1	–	–	24	–
Equities	1,366	27	13	84	(32)	–	–	1,458	71
	1,419	27	14	89	(36)	–	–	1,513	71
Investment									
Mortgage-backed securities	20	–	1	–	–	–	–	21	n.a.
Corporate debt and other debt	146	–	7	–	1	–	–	154	n.a.
Equities	322	–	(3)	4	(4)	–	–	319	n.a.
	488	–	5	4	(3)	–	–	494	n.a.
Loans	1,145	13	11	44	(5)	–	(153)	1,055	(15)
Other									
Net derivative balances (3)									
Interest rate contracts	(666)	48	1	(6)	(4)	6	(2)	(623)	47
Foreign exchange contracts	46	5	–	(1)	(13)	–	(2)	35	5
Other contracts	(341)	2	(5)	–	–	(50)	10	(384)	(13)
Valuation adjustments	21	–	–	–	(6)	–	–	15	–
Other assets	2	–	–	–	(2)	–	–	–	–
	\$ 2,114	\$ 95	\$ 26	\$ 130	\$ (69)	\$ (44)	\$ (147)	\$ 2,105	\$ 95
Liabilities									
Deposits	\$ (70)	\$ (7)	\$ –	\$ (37)	\$ 3	\$ (36)	\$ 36	\$ (111)	\$ (5)
Other									
Other liabilities	(11)	–	–	–	4	–	–	(7)	–
	\$ (81)	\$ (7)	\$ –	\$ (37)	\$ 7	\$ (36)	\$ 36	\$ (118)	\$ (5)

Note 3 Fair value of financial instruments (continued)

For the three months ended July 31, 2020										
(Millions of Canadian dollars)	Fair value at beginning of period	Gains (losses) included in earnings	Gains (losses) included in OCI (1)	Purchases (issuances)	Settlement (sales) and other (2)	Transfers into Level 3	Transfers out of Level 3	Fair value at end of period	Gains (losses) included in earnings for positions still held	
Assets										
Securities										
Trading										
Debt issued or guaranteed by:										
U.S. state, municipal and agencies \$	54	–	(2)	–	(6)	–	–	46		–
Asset-backed securities										
Non-CDO securities	2	–	–	–	–	–	–	2		–
Corporate debt and other debt	19	–	–	–	–	12	–	31		–
Equities	1,256	(23)	(32)	55	(21)	2	1	1,238		(2)
	1,331	(23)	(34)	55	(27)	14	1	1,317		(2)
Investment										
Mortgage-backed securities	28	–	(4)	–	–	–	–	24		n.a.
Corporate debt and other debt	165	–	(3)	–	–	–	–	162		n.a.
Equities	333	–	4	–	–	–	–	337		n.a.
	526	–	(3)	–	–	–	–	523		n.a.
Loans	994	58	9	62	(11)	176	(73)	1,215		21
Other										
Net derivative balances (3)										
Interest rate contracts	(596)	23	(1)	11	–	–	(2)	(565)		21
Foreign exchange contracts	66	(23)	–	6	–	(3)	(1)	45		(22)
Other contracts	(326)	58	5	(53)	14	(25)	98	(229)		89
Valuation adjustments	10	–	–	–	2	–	–	12		–
Other assets	49	9	(2)	–	(4)	–	–	52		9
	\$ 2,054	\$ 102	\$ (26)	\$ 81	\$ (26)	\$ 162	\$ 23	\$ 2,370		\$ 116
Liabilities										
Deposits	\$ (163)	\$ (17)	\$ 2	\$ (40)	\$ 4	\$ (28)	\$ 50	\$ (192)		\$ (16)
Other										
Other liabilities	(36)	(5)	1	–	2	–	–	(38)		(5)
	\$ (199)	\$ (22)	\$ 3	\$ (40)	\$ 6	\$ (28)	\$ 50	\$ (230)		\$ (21)

For the nine months ended July 31, 2021										
(Millions of Canadian dollars)	Fair value at beginning of period	Gains (losses) included in earnings	Gains (losses) included in OCI (1)	Purchases (issuances)	Settlement (sales) and other (2)	Transfers into Level 3	Transfers out of Level 3	Fair value at end of period	Gains (losses) included in earnings for positions still held	
Assets										
Securities										
Trading										
Debt issued or guaranteed by:										
U.S. state, municipal and agencies \$	44	–	(2)	–	(13)	–	–	29		1
Asset-backed securities										
Non-CDO securities	2	–	–	–	–	–	–	2		–
Corporate debt and other debt	30	(1)	–	8	(3)	14	(24)	24		–
Equities	1,261	75	(53)	248	(98)	25	–	1,458		79
	1,337	74	(55)	256	(114)	39	(24)	1,513		80
Investment										
Mortgage-backed securities	27	–	(6)	–	–	–	–	21		n.a.
Corporate debt and other debt	160	–	(9)	–	3	–	–	154		n.a.
Equities	335	–	(18)	4	(2)	–	–	319		n.a.
	522	–	(33)	4	1	–	–	494		n.a.
Loans	1,070	(10)	2	177	(5)	70	(249)	1,055		20
Other										
Net derivative balances (3)										
Interest rate contracts	(588)	17	(1)	6	(44)	(3)	(10)	(623)		(18)
Foreign exchange contracts	22	30	1	14	(27)	7	(12)	35		(29)
Other contracts	(301)	5	8	(56)	47	(274)	187	(384)		15
Valuation adjustments	40	–	–	–	(25)	–	–	15		–
Other assets	53	(39)	(2)	–	(12)	–	–	–		–
	\$ 2,155	\$ 77	\$ (80)	\$ 401	\$ (179)	\$ (161)	\$ (108)	\$ 2,105		\$ 68
Liabilities										
Deposits	\$ (139)	\$ (62)	\$ 5	\$ (129)	\$ 50	\$ (113)	\$ 277	\$ (111)		\$ 6
Other										
Other liabilities	(38)	22	1	–	8	–	–	(7)		23
	\$ (177)	\$ (40)	\$ 6	\$ (129)	\$ 58	\$ (113)	\$ 277	\$ (118)		\$ 29

(Millions of Canadian dollars)	For the nine months ended July 31, 2020								Gains (losses) included in earnings for positions still held
	Fair value at beginning of period	Gains (losses) included in earnings	Gains (losses) included in OCI (1)	Purchases (issuances)	Settlement (sales) and other (2)	Transfers into Level 3	Transfers out of Level 3	Fair value at end of period	
Assets									
Securities									
Trading									
Debt issued or guaranteed by:									
U.S. state, municipal and agencies	\$ 58	\$ –	\$ 2	\$ –	(\$ 14)	\$ –	\$ –	\$ 46	\$ –
Asset-backed securities									
Non-CDO securities	2	–	–	–	–	–	–	2	–
Corporate debt and other debt	21	(1)	–	–	(1)	12	–	31	–
Equities	1,219	(101)	15	173	(68)	2	(2)	1,238	(41)
	1,300	(102)	17	173	(83)	14	(2)	1,317	(41)
Investment									
Mortgage-backed securities	27	–	(3)	–	–	–	–	24	n.a.
Corporate debt and other debt	153	–	8	1	–	–	–	162	n.a.
Equities	294	–	40	4	(1)	–	–	337	n.a.
	474	–	45	5	(1)	–	–	523	n.a.
Loans	680	77	9	552	(510)	516	(109)	1,215	(46)
Other									
Net derivative balances (3)									
Interest rate contracts	(585)	(87)	(3)	(28)	8	34	96	(565)	(30)
Foreign exchange contracts	21	17	1	22	–	(8)	(8)	45	9
Other contracts	(195)	(36)	(2)	(127)	21	(58)	168	(229)	12
Valuation adjustments	22	–	–	–	(10)	–	–	12	–
Other assets	77	(10)	2	–	(17)	–	–	52	(11)
	\$ 1,794	\$ (141)	\$ 69	\$ 597	\$ (592)	\$ 498	\$ 145	\$ 2,370	\$ (107)
Liabilities									
Deposits	\$ (156)	\$ 69	\$ (2)	\$ (253)	\$ 22	\$ (110)	\$ 238	\$ (192)	\$ 67
Other									
Other liabilities	(60)	7	(2)	4	13	–	–	(38)	7
	\$ (216)	\$ 76	\$ (4)	\$ (249)	\$ 35	\$ (110)	\$ 238	\$ (230)	\$ 74

(1) These amounts include the foreign currency translation gains or losses arising on consolidation of foreign subsidiaries relating to the Level 3 instruments, where applicable. The unrealized gains on Investment securities recognized in OCI were \$1 million for the three months ended July 31, 2021 (July 31, 2020 – gains of \$1 million) and losses of \$10 million for the nine months ended July 31, 2021 (July 31, 2020 – gains of \$30 million), excluding the translation gains or losses arising on consolidation.

(2) Other includes amortization of premiums or discounts recognized in net income.

(3) Net derivatives as at July 31, 2021 included derivative assets of \$480 million (July 31, 2020 – \$736 million) and derivative liabilities of \$1,437 million (July 31, 2020 – \$1,473 million). n.a. not applicable

Transfers between fair value hierarchy levels for instruments carried at fair value on a recurring basis

Transfers between Level 1 and Level 2, and transfers into and out of Level 3 are assumed to occur at the end of the period. For an asset or a liability that transfers into Level 3 during the period, the entire change in fair value for the period is excluded from the Gains (losses) included in earnings for positions still held column of the above reconciliation, whereas for transfers out of Level 3 during the period, the entire change in fair value for the period is included in the same column of the above reconciliation.

Transfers between Level 1 and 2 are dependent on whether fair value is obtained on the basis of quoted market prices in active markets (Level 1).

During the three months ended July 31, 2021, there were no significant transfers out of Level 1 to Level 2.

During the three months ended July 31, 2021, there were no significant transfers out of Level 2 to Level 1.

Transfers between Level 2 and Level 3 are primarily due to either a change in the market observability for an input, or a change in an unobservable input's significance to a financial instrument's fair value.

During the three months ended July 31, 2021, transfers out of Level 3 to Level 2 included:

- \$153 million of Loans, due to changes in the significance of unobservable inputs.

Note 3 Fair value of financial instruments (continued)**Net interest income from financial instruments**

Interest and dividend income arising from financial assets and financial liabilities and the associated costs of funding are reported in Net interest income.

(Millions of Canadian dollars)	For the three months ended		For the nine months ended	
	July 31 2021	July 31 2020	July 31 2021	July 31 2020
Interest and dividend income ^{(1), (2)}				
Financial instruments measured at fair value through profit or loss	\$ 1,125	\$ 1,663	\$ 3,377	\$ 7,084
Financial instruments measured at fair value through other comprehensive income	85	213	279	827
Financial instruments measured at amortized cost	5,787	6,080	17,475	19,509
	6,997	7,956	21,131	27,420
Interest expense ⁽¹⁾				
Financial instruments measured at fair value through profit or loss	\$ 706	\$ 1,112	\$ 2,145	\$ 5,107
Financial instruments measured at amortized cost	1,239	1,705	4,045	6,488
	1,945	2,817	6,190	11,595
Net interest income	\$ 5,052	\$ 5,139	\$ 14,941	\$ 15,825

(1) Excludes the following amounts related to our insurance operations and included in Insurance premiums, investment and fee income in the Interim Consolidated Statements of Income: for the three months ended July 31, 2021, Interest income of \$146 million (July 31, 2020 – \$133 million), and Interest expense of \$1 million (July 31, 2020 – \$2 million); for the nine months ended July 31, 2021, Interest income of \$434 million (July 31, 2020 – \$388 million), and Interest expense of \$3 million (July 31, 2020 – \$5 million).

(2) Includes dividend income for the three months ended July 31, 2021 of \$606 million (July 31, 2020 – \$811 million) and for the nine months ended July 31, 2021 of \$1,823 million (July 31, 2020 – \$2,033 million), which is presented in Interest and dividend income in the Interim Consolidated Statements of Income.

Note 4 Securities**Unrealized gains and losses on securities at FVOCI** ^{(1), (2)}

(Millions of Canadian dollars)	As at							
	July 31, 2021				October 31, 2020			
	Cost/ Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	Cost/ Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Debt issued or guaranteed by:								
Canadian government								
Federal ⁽³⁾	\$ 2,339	\$ 1	\$ (82)	\$ 2,258	\$ 2,562	\$ 1	\$ (22)	\$ 2,541
Provincial and municipal	3,286	4	(136)	3,154	3,237	27	(31)	3,233
U.S. federal, state, municipal and agencies ⁽³⁾	31,157	418	(142)	31,433	38,523	323	(322)	38,524
Other OECD government	5,805	7	(1)	5,811	7,336	11	(2)	7,345
Mortgage-backed securities ⁽³⁾	2,443	3	(11)	2,435	2,418	5	(53)	2,370
Asset-backed securities								
CDO	7,332	1	(2)	7,331	7,504	–	(90)	7,414
Non-CDO securities	609	6	–	615	859	2	(7)	854
Corporate debt and other debt	17,941	64	(4)	18,001	19,041	76	(3)	19,114
Equities	266	239	–	505	276	253	(4)	525
	\$ 71,178	\$ 743	\$ (378)	\$ 71,543	\$ 81,756	\$ 698	\$ (534)	\$ 81,920

(1) Excludes \$66,513 million of held-to-collect securities as at July 31, 2021 that are carried at amortized cost, net of allowance for credit losses (October 31, 2020 – \$57,823 million).

(2) Gross unrealized gains and losses includes \$(4) million of allowance for credit losses on debt securities at FVOCI as at July 31, 2021 (October 31, 2020 – \$8 million) recognized in income and other components of equity.

(3) The majority of the MBS are residential. Cost/Amortized cost, Gross unrealized gains, Gross unrealized losses and Fair value related to commercial MBS are \$2,278 million, \$1 million, \$11 million and \$2,268 million, respectively as at July 31, 2021 (October 31, 2020 – \$2,185 million, \$nil, \$48 million and \$2,137 million, respectively).

Allowance for credit losses on investment securities

The following tables reconcile the opening and closing allowance for debt securities at FVOCI and amortized cost by Stage. Reconciling items include the following:

- Model changes, which generally comprise the impact of significant changes to the quantitative models used to estimate expected credit losses and any staging impacts that may arise.
- Transfers between Stages, which are presumed to occur before any corresponding remeasurement of the allowance.
- Purchases, which reflect the allowance related to assets newly recognized during the period, including those assets that were derecognized following a modification of terms.
- Sales and maturities, which reflect the allowance related to assets derecognized during the period without a credit loss being incurred, including those assets that were derecognized following a modification of terms.
- Changes in risk, parameters and exposures, which comprise the impact of changes in model inputs or assumptions, including changes in forward-looking macroeconomic conditions; partial repayments; changes in the measurement following a transfer between Stages; and unwinding of the time value discount due to the passage of time.

Allowance for credit losses – securities at FVOCI ⁽¹⁾

(Millions of Canadian dollars)	For the three months ended							
	July 31, 2021				July 31, 2020			
	Performing		Impaired		Performing		Impaired	
	Stage 1	Stage 2	Stage 3 (2)	Total	Stage 1	Stage 2	Stage 3 (2)	Total
Balance at beginning of period	\$ 7	\$ 1	\$ (7)	\$ 1	\$ 23	\$ –	\$ –	\$ 23
Provision for credit losses								
Model changes	(4)	–	–	(4)	–	–	–	–
Transfers to stage 1	–	–	–	–	–	–	–	–
Transfers to stage 2	–	–	–	–	–	–	–	–
Transfers to stage 3	–	–	–	–	–	–	–	–
Purchases	2	–	–	2	4	–	–	4
Sales and maturities	(1)	–	–	(1)	(7)	–	–	(7)
Changes in risk, parameters and exposures	(1)	–	(2)	(3)	(1)	1	(2)	(2)
Exchange rate and other	1	1	(1)	1	(1)	–	–	(1)
Balance at end of period	\$ 4	\$ 2	\$ (10)	\$ (4)	\$ 18	\$ 1	\$ (2)	\$ 17

(Millions of Canadian dollars)	For the nine months ended							
	July 31, 2021				July 31, 2020			
	Performing		Impaired		Performing		Impaired	
	Stage 1	Stage 2	Stage 3 (2)	Total	Stage 1	Stage 2	Stage 3 (2)	Total
Balance at beginning of period	\$ 12	\$ –	\$ (4)	\$ 8	\$ 4	\$ –	\$ (7)	\$ (3)
Provision for credit losses								
Model changes	(4)	–	–	(4)	–	–	–	–
Transfers to stage 1	–	–	–	–	–	–	–	–
Transfers to stage 2	–	–	–	–	–	–	–	–
Transfers to stage 3	–	–	–	–	–	–	–	–
Purchases	7	–	–	7	15	–	–	15
Sales and maturities	(8)	(1)	–	(9)	(9)	–	–	(9)
Changes in risk, parameters and exposures	(3)	3	(6)	(6)	8	1	6	15
Exchange rate and other	–	–	–	–	–	–	(1)	(1)
Balance at end of period	\$ 4	\$ 2	\$ (10)	\$ (4)	\$ 18	\$ 1	\$ (2)	\$ 17

(1) Expected credit losses on debt securities at FVOCI are not separately recognized on the balance sheet as the related securities are recorded at fair value. The cumulative amount of credit losses recognized in income is presented in Other components of equity.

(2) Reflects changes in the allowance for purchased credit impaired securities.

Allowance for credit losses – securities at amortized cost

(Millions of Canadian dollars)	For the three months ended							
	July 31, 2021				July 31, 2020			
	Performing		Impaired		Performing		Impaired	
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
Balance at beginning of period	\$ 11	\$ 17	\$ –	\$ 28	\$ 9	\$ 20	\$ –	\$ 29
Provision for credit losses								
Model changes	(4)	–	–	(4)	–	–	–	–
Transfers to stage 1	–	–	–	–	–	–	–	–
Transfers to stage 2	–	–	–	–	–	–	–	–
Transfers to stage 3	–	–	–	–	–	–	–	–
Purchases	1	–	–	1	1	–	–	1
Sales and maturities	–	–	–	–	(1)	–	–	(1)
Changes in risk, parameters and exposures	–	–	–	–	1	–	–	1
Exchange rate and other	–	–	–	–	–	(1)	–	(1)
Balance at end of period	\$ 8	\$ 17	\$ –	\$ 25	\$ 10	\$ 19	\$ –	\$ 29

(Millions of Canadian dollars)	For the nine months ended							
	July 31, 2021				July 31, 2020			
	Performing		Impaired		Performing		Impaired	
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
Balance at beginning of period	\$ 10	\$ 19	\$ –	\$ 29	\$ 5	\$ 19	\$ –	\$ 24
Provision for credit losses								
Model changes	(4)	–	–	(4)	–	–	–	–
Transfers to stage 1	–	–	–	–	–	–	–	–
Transfers to stage 2	–	–	–	–	–	–	–	–
Transfers to stage 3	–	–	–	–	–	–	–	–
Purchases	8	–	–	8	6	–	–	6
Sales and maturities	(1)	–	–	(1)	(2)	–	–	(2)
Changes in risk, parameters and exposures	(5)	–	–	(5)	1	1	–	2
Exchange rate and other	–	(2)	–	(2)	–	(1)	–	(1)
Balance at end of period	\$ 8	\$ 17	\$ –	\$ 25	\$ 10	\$ 19	\$ –	\$ 29

Note 4 Securities (continued)**Credit risk exposure by internal risk rating**

The following table presents the fair value of debt securities at FVOCI and gross carrying amount of securities at amortized cost. Risk ratings are based on internal ratings used in the measurement of expected credit losses as at the reporting date, as outlined in the internal ratings maps in the Credit risk section of our 2020 Annual Report.

(Millions of Canadian dollars)	As at								
	July 31, 2021				October 31, 2020				
	Performing		Impaired		Performing		Impaired		
	Stage 1	Stage 2	Stage 3 (1)	Total	Stage 1	Stage 2	Stage 3 (1)	Total	
Investment securities									
Securities at FVOCI									
Investment grade	\$ 70,338	\$ 114	\$ –	\$ 70,452	\$ 80,719	\$ 87	\$ –	\$ 80,806	
Non-investment grade	435	–	–	435	431	1	–	432	
Impaired	–	–	151	151	–	–	157	157	
	70,773	114	151	71,038	81,150	88	157	81,395	
Items not subject to impairment (2)				505				525	
				\$ 71,543				\$ 81,920	
Securities at amortized cost									
Investment grade	\$ 65,409	\$ –	\$ –	\$ 65,409	\$ 56,885	\$ –	\$ –	\$ 56,885	
Non-investment grade	907	222	–	1,129	647	320	–	967	
Impaired	–	–	–	–	–	–	–	–	
	66,316	222	–	66,538	57,532	320	–	57,852	
Allowance for credit losses	8	17	–	25	10	19	–	29	
Amortized cost	\$ 66,308	\$ 205	\$ –	\$ 66,513	\$ 57,522	\$ 301	\$ –	\$ 57,823	

(1) Reflects \$151 million of purchased credit impaired securities (October 31, 2020 – \$157 million).

(2) Investment securities at FVOCI not subject to impairment represent equity securities designated as FVOCI.

Note 5 Loans and allowance for credit losses (continued)**Allowance for credit losses – Retail and wholesale loans**

(Millions of Canadian dollars)	For the three months ended								
	July 31, 2021				July 31, 2020				
	Performing		Impaired		Performing		Impaired		
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total	
Residential mortgages									
Balance at beginning of period	\$ 192	\$ 148	\$ 155	\$ 495	\$ 114	\$ 223	\$ 147	\$ 484	
Provision for credit losses									
Model changes	(6)	(5)	–	(11)	–	–	–	–	
Transfers to stage 1	41	(36)	(5)	–	56	(50)	(6)	–	
Transfers to stage 2	(2)	3	(1)	–	(5)	8	(3)	–	
Transfers to stage 3	(1)	(11)	12	–	–	(11)	11	–	
Originations	31	–	–	31	24	–	–	24	
Maturities	(7)	(3)	–	(10)	(4)	(4)	–	(8)	
Changes in risk, parameters and exposures	(64)	9	5	(50)	(26)	61	11	46	
Write-offs	–	–	(9)	(9)	–	–	(9)	(9)	
Recoveries	–	–	3	3	–	–	2	2	
Exchange rate and other	2	2	(4)	–	(2)	(4)	(2)	(8)	
Balance at end of period	\$ 186	\$ 107	\$ 156	\$ 449	\$ 157	\$ 223	\$ 151	\$ 531	
Personal									
Balance at beginning of period	\$ 491	\$ 680	\$ 104	\$ 1,275	\$ 343	\$ 757	\$ 158	\$ 1,258	
Provision for credit losses									
Model changes	(1)	–	–	(1)	–	–	–	–	
Transfers to stage 1	204	(202)	(2)	–	110	(109)	(1)	–	
Transfers to stage 2	(19)	19	–	–	(25)	25	–	–	
Transfers to stage 3	(1)	(13)	14	–	–	(16)	16	–	
Originations	35	–	–	35	27	–	–	27	
Maturities	(22)	(34)	–	(56)	(12)	(26)	–	(38)	
Changes in risk, parameters and exposures	(195)	151	33	(11)	(43)	146	74	177	
Write-offs	–	–	(95)	(95)	–	–	(141)	(141)	
Recoveries	–	–	38	38	–	–	30	30	
Exchange rate and other	–	–	(2)	(2)	1	(1)	(12)	(12)	
Balance at end of period	\$ 492	\$ 601	\$ 90	\$ 1,183	\$ 401	\$ 776	\$ 124	\$ 1,301	
Credit cards									
Balance at beginning of period	\$ 326	\$ 809	\$ –	\$ 1,135	\$ 246	\$ 875	\$ –	\$ 1,121	
Provision for credit losses									
Transfers to stage 1	197	(197)	–	–	84	(84)	–	–	
Transfers to stage 2	(22)	22	–	–	(23)	23	–	–	
Transfers to stage 3	(1)	(94)	95	–	(1)	(101)	102	–	
Originations	1	–	–	1	1	–	–	1	
Maturities	(1)	(9)	–	(10)	(2)	(8)	–	(10)	
Changes in risk, parameters and exposures	(220)	151	(16)	(85)	26	212	9	247	
Write-offs	–	–	(123)	(123)	–	–	(143)	(143)	
Recoveries	–	–	43	43	–	–	32	32	
Exchange rate and other	(1)	1	1	1	(1)	–	–	(1)	
Balance at end of period	\$ 279	\$ 683	\$ –	\$ 962	\$ 330	\$ 917	\$ –	\$ 1,247	
Small business									
Balance at beginning of period	\$ 81	\$ 71	\$ 37	\$ 189	\$ 56	\$ 21	\$ 30	\$ 107	
Provision for credit losses									
Model changes	3	1	–	4	–	–	–	–	
Transfers to stage 1	10	(10)	–	–	5	(5)	–	–	
Transfers to stage 2	(1)	1	–	–	(2)	2	–	–	
Transfers to stage 3	–	(1)	1	–	(1)	–	1	–	
Originations	11	–	–	11	4	–	–	4	
Maturities	(5)	(11)	–	(16)	(2)	(3)	–	(5)	
Changes in risk, parameters and exposures	(8)	5	3	–	(6)	7	13	14	
Write-offs	–	–	(7)	(7)	–	–	(9)	(9)	
Recoveries	–	–	2	2	–	–	2	2	
Exchange rate and other	–	–	(2)	(2)	(1)	(1)	(2)	(4)	
Balance at end of period	\$ 91	\$ 56	\$ 34	\$ 181	\$ 53	\$ 21	\$ 35	\$ 109	
Wholesale									
Balance at beginning of period	\$ 764	\$ 1,024	\$ 523	\$ 2,311	\$ 1,246	\$ 807	\$ 737	\$ 2,790	
Provision for credit losses									
Model changes	1	24	–	25	–	–	–	–	
Transfers to stage 1	194	(193)	(1)	–	6	(5)	(1)	–	
Transfers to stage 2	(20)	21	(1)	–	(111)	112	(1)	–	
Transfers to stage 3	(2)	(17)	19	–	(11)	(47)	58	–	
Originations	129	–	–	129	206	–	–	206	
Maturities	(116)	(129)	–	(245)	(233)	(100)	–	(333)	
Changes in risk, parameters and exposures	(346)	174	(10)	(182)	(38)	250	115	327	
Write-offs	–	–	(34)	(34)	–	–	(163)	(163)	
Recoveries	–	–	18	18	–	–	12	12	
Exchange rate and other	6	9	(12)	3	(19)	(13)	(34)	(66)	
Balance at end of period	\$ 610	\$ 913	\$ 502	\$ 2,025	\$ 1,046	\$ 1,004	\$ 723	\$ 2,773	

(Millions of Canadian dollars)	For the nine months ended								
	July 31, 2021				July 31, 2020				
	Performing		Impaired		Performing		Impaired		
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total	
Residential mortgages									
Balance at beginning of period	\$ 206	\$ 160	\$ 152	\$ 518	\$ 146	\$ 77	\$ 179	\$ 402	
Provision for credit losses									
Model changes	(6)	(5)	–	(11)	–	–	–	–	
Transfers to stage 1	161	(146)	(15)	–	116	(89)	(27)	–	
Transfers to stage 2	(12)	15	(3)	–	(31)	37	(6)	–	
Transfers to stage 3	(2)	(38)	40	–	(2)	(26)	28	–	
Originations	84	–	–	84	51	–	–	51	
Maturities	(23)	(21)	–	(44)	(11)	(11)	–	(22)	
Changes in risk, parameters and exposures	(220)	150	18	(52)	(110)	249	13	152	
Write-offs	–	–	(28)	(28)	–	–	(31)	(31)	
Recoveries	–	–	8	8	–	–	8	8	
Exchange rate and other	(2)	(8)	(16)	(26)	(2)	(14)	(13)	(29)	
Balance at end of period	\$ 186	\$ 107	\$ 156	\$ 449	\$ 157	\$ 223	\$ 151	\$ 531	
Personal									
Balance at beginning of period	\$ 480	\$ 733	\$ 96	\$ 1,309	\$ 272	\$ 520	\$ 143	\$ 935	
Provision for credit losses									
Model changes	(1)	–	–	(1)	–	–	–	–	
Transfers to stage 1	546	(542)	(4)	–	339	(335)	(4)	–	
Transfers to stage 2	(71)	71	–	–	(81)	82	(1)	–	
Transfers to stage 3	(2)	(45)	47	–	(2)	(55)	57	–	
Originations	96	–	–	96	80	–	–	80	
Maturities	(69)	(103)	–	(172)	(35)	(73)	–	(108)	
Changes in risk, parameters and exposures	(485)	489	151	155	(174)	639	287	752	
Write-offs	–	–	(301)	(301)	–	–	(438)	(438)	
Recoveries	–	–	106	106	–	–	97	97	
Exchange rate and other	(2)	(2)	(5)	(9)	2	(2)	(17)	(17)	
Balance at end of period	\$ 492	\$ 601	\$ 90	\$ 1,183	\$ 401	\$ 776	\$ 124	\$ 1,301	
Credit cards									
Balance at beginning of period	\$ 364	\$ 882	\$ –	\$ 1,246	\$ 173	\$ 659	\$ –	\$ 832	
Provision for credit losses									
Transfers to stage 1	575	(575)	–	–	319	(319)	–	–	
Transfers to stage 2	(80)	80	–	–	(70)	70	–	–	
Transfers to stage 3	(3)	(230)	233	–	(2)	(283)	285	–	
Originations	4	–	–	4	6	–	–	6	
Maturities	(5)	(24)	–	(29)	(7)	(22)	–	(29)	
Changes in risk, parameters and exposures	(574)	550	(3)	(27)	(88)	812	107	831	
Write-offs	–	–	(350)	(350)	–	–	(490)	(490)	
Recoveries	–	–	120	120	–	–	98	98	
Exchange rate and other	(2)	–	–	(2)	(1)	–	–	(1)	
Balance at end of period	\$ 279	\$ 683	\$ –	\$ 962	\$ 330	\$ 917	\$ –	\$ 1,247	
Small business									
Balance at beginning of period	\$ 78	\$ 29	\$ 33	\$ 140	\$ 29	\$ 10	\$ 22	\$ 61	
Provision for credit losses									
Model changes	3	1	–	4	–	–	–	–	
Transfers to stage 1	49	(49)	–	–	10	(10)	–	–	
Transfers to stage 2	(7)	7	–	–	(5)	5	–	–	
Transfers to stage 3	–	(2)	2	–	(1)	(1)	2	–	
Originations	28	–	–	28	12	–	–	12	
Maturities	(16)	(17)	–	(33)	(5)	(4)	–	(9)	
Changes in risk, parameters and exposures	(67)	57	19	9	14	22	38	74	
Write-offs	–	–	(21)	(21)	–	–	(29)	(29)	
Recoveries	–	–	6	6	–	–	5	5	
Exchange rate and other	23	30	(5)	48	(1)	(1)	(3)	(5)	
Balance at end of period	\$ 91	\$ 56	\$ 34	\$ 181	\$ 53	\$ 21	\$ 35	\$ 109	
Wholesale									
Balance at beginning of period	\$ 995	\$ 1,132	\$ 668	\$ 2,795	\$ 281	\$ 396	\$ 488	\$ 1,165	
Provision for credit losses									
Model changes	1	24	–	25	–	–	–	–	
Transfers to stage 1	449	(445)	(4)	–	72	(69)	(3)	–	
Transfers to stage 2	(107)	134	(27)	–	(156)	158	(2)	–	
Transfers to stage 3	(4)	(54)	58	–	(13)	(92)	105	–	
Originations	489	–	–	489	685	–	–	685	
Maturities	(414)	(403)	–	(817)	(310)	(195)	–	(505)	
Changes in risk, parameters and exposures	(747)	594	29	(124)	500	812	470	1,782	
Write-offs	–	–	(183)	(183)	–	–	(299)	(299)	
Recoveries	–	–	45	45	–	–	40	40	
Exchange rate and other	(52)	(69)	(84)	(205)	(13)	(6)	(76)	(95)	
Balance at end of period	\$ 610	\$ 913	\$ 502	\$ 2,025	\$ 1,046	\$ 1,004	\$ 723	\$ 2,773	

Note 5 Loans and allowance for credit losses (continued)**Key inputs and assumptions**

The following provides an update on the key inputs and assumptions used in the measurement of expected credit losses. For further details, refer to Note 2 and Note 5 of our audited 2020 Annual Consolidated Financial Statements.

The COVID-19 pandemic significantly impacted our determination of allowance for credit losses and required the application of heightened judgment. Vaccine distribution has accelerated in many advanced economies, but remains slower in most emerging markets. Regions with higher vaccination rates and/or lower case counts have eased COVID-19 containment measures, and that is allowing for a recovery in economic activity in the near-term in those regions. Significant fiscal and monetary policy stimulus, as well as bank-led deferral programs introduced in the spring of 2020, have generally supported lower defaults, though uncertainty remains regarding the duration and ultimate impact on future losses from these programs. As the COVID-19 pandemic continues to evolve, including through the emergence and progression of new variants of COVID-19 in different regions, governments continue to adjust their response and approach to the pandemic. Consequently, the extent of containment measures and progress towards reopening continues to vary and fluctuate across regions. Despite positive developments, uncertainty remains regarding vaccine efficacy against new variants of COVID-19, the potential impact of vaccine hesitancy, the timing of vaccine rollouts to certain age-groups, and global vaccine supply and availability, including uneven vaccine access. All of these factors contribute to the uncertainty regarding the timing of a full recovery. Accordingly, our allowances continue to have a higher than usual degree of uncertainty and the inputs used are inherently subject to change, which may materially change our estimate of Stage 1 and Stage 2 allowance for credit losses in future periods.

To address the uncertainties inherent in the current and future environment and to reflect all relevant risk factors not captured in our modelled results, we applied expert credit judgment in determining significant increases in credit risk since origination and on our weighted allowance for credit losses. In light of the significant uncertainty, the impact of expert credit judgment on our allowances remains elevated as compared to pre-pandemic levels. We applied quantitative and qualitative adjustments for the impacts of the unprecedented macroeconomic scenarios arising from the COVID-19 pandemic, including the efficacy and distribution of vaccines, the temporary effects of the bank and extended government led support programs which may not completely mitigate future losses, and the impacts to particularly vulnerable sectors and portfolios affected by the COVID-19 pandemic.

All of our IFRS 9 scenarios are designed to include the impact of COVID-19. Despite positive developments and continuous economic improvement, the possibility of a more prolonged recovery period, including the duration of containment measures in some regions of varying degrees, as well as heightened risk in the real estate sector, have been reflected in our scenario design and weights.

Our base scenario reflects a continuation of the recovery that has been underway since the sharp drop in economic activity in calendar Q2 2020. Vaccine distribution has further accelerated since Q2 2021, and the recovery is expected to occur more quickly than our October 31, 2020 forecast. Canadian and U.S. unemployment rates are expected to remain above pre-shock levels at the end of calendar 2021 though we expect the pace of GDP growth to continue picking up from Q3 2021 consistent with our expectation that rising vaccination rates will enable a more significant and sustainable easing of containment measures.

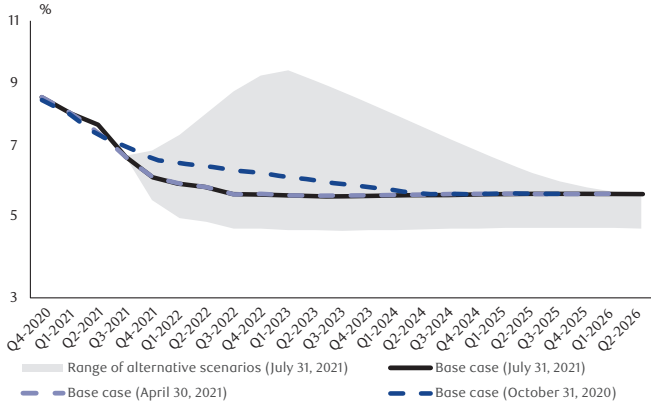
Downside scenarios, including two additional and more severe downside scenarios designed for the energy and real estate sectors, reflect the possibility of a second macroeconomic shock beginning in the latter half of calendar 2022, in addition to the first shock in the second quarter of 2020, with conditions deteriorating from Q3 2021 levels for up to 18 months, followed by a recovery for the remainder of the period. These scenarios assume a monetary policy response that returns the economy to a long-run, sustainable growth rate within the forecast period.

The upside scenario reflects a slightly faster and larger economic recovery than the base scenario, without prompting an offsetting monetary policy response, followed by a return to a long-run sustainable growth rate within the forecast period, at levels slightly above the base scenario.

The following provides additional detail about our forecasts for certain key macroeconomic variables used in the models to estimate ACL:

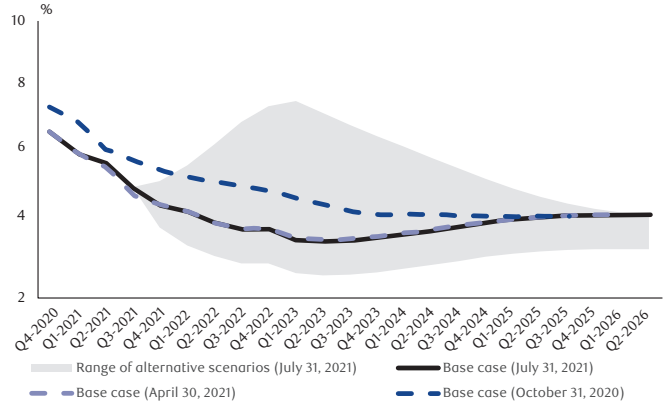
- Unemployment** – In our base forecast, calendar Q3 2021 unemployment rates are expected to decline to 7.1% in Canada and 5.2% in the U.S. We expect unemployment rates to continuously improve in both regions for the remainder of the year. We expect the Canadian unemployment rate to stabilize around its long run equilibrium by the latter half of calendar 2022 and for the U.S. unemployment rate to improve beyond the long run equilibrium beginning Q2 2022 through most of the remaining forecast horizon.

Canada Unemployment Rate (1)



(1) Represents the average quarterly unemployment level over the calendar quarters presented.

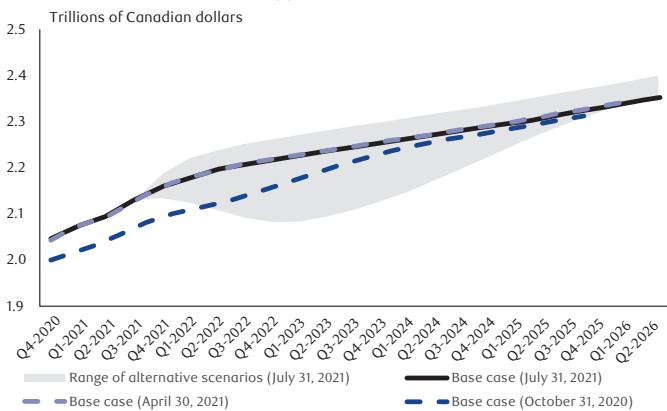
U.S. Unemployment Rate (1)



(1) Represents the average quarterly unemployment level over the calendar quarters presented.

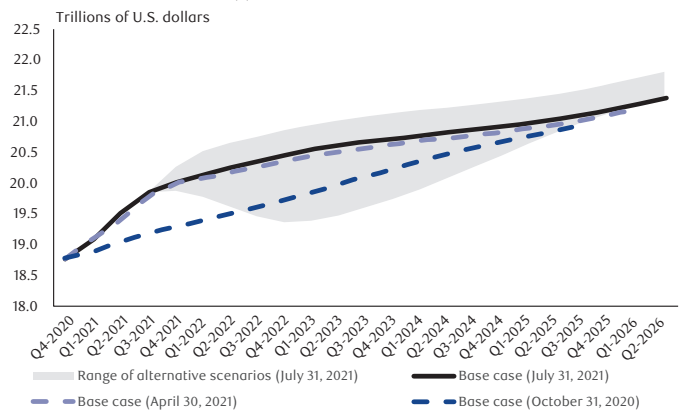
- Gross Domestic Product (GDP)** – In our base forecast, we expect Canadian GDP in calendar Q3 2021 to be 0.8% above pre-shock levels and U.S. GDP to be 3.1% above such levels. Canadian and U.S. GDP are expected to be 2.2% and 3.9% above pre-shock levels by the end of calendar 2021.

Canada Real GDP (1)



(1) Represents the seasonally adjusted annual rate indexed to 2012 Canadian dollars over the calendar quarters presented.

U.S. Real GDP (1)



(1) Represents the seasonally adjusted annual rate indexed to 2012 U.S. dollars over the calendar quarters presented.

- Oil price (West Texas Intermediate in US\$)** – In our base forecast, we expect oil prices to average \$70 per barrel over the next 12 months and \$57 per barrel in the following 2 to 5 years. The range of average prices in our alternative downside and upside scenarios is \$27 to \$90 per barrel for the next 12 months and \$36 to \$62 per barrel for the following 2 to 5 years. As at April 30, 2021, our base case forecast included an average price of \$61 per barrel for the next 12 months and \$53 per barrel for the following 2 to 5 years. As at October 31, 2020, our base case forecast included an average price of \$43 per barrel for the next 12 months and \$48 per barrel for the following 2 to 5 years.
- Canadian housing price index** – In our base forecast, we expect housing prices to increase by 1.2% over the next 12 months, with a compound annual growth rate of 4.0% for the following 2 to 5 years. The range of annual housing price growth (contraction) in our alternative downside and upside scenarios is (29.6)% to 10.9% over the next 12 months and 4.2% to 11.1% for the following 2 to 5 years. As at April 30, 2021, our base case forecast included housing price growth of 3.0% for the next 12 months and 3.7% for the following 2 to 5 years. As at October 31, 2020, our base case forecast included housing price growth of 0.6% for the next 12 months and 4.5% for the following 2 to 5 years.

Note 5 Loans and allowance for credit losses (continued)**Credit risk exposure by internal risk rating**

The following table presents the gross carrying amount of loans measured at amortized cost, and the full contractual amount of undrawn loan commitments subject to the impairment requirements of IFRS 9. Risk ratings are based on internal ratings used in the measurement of expected credit losses as at the reporting date, as outlined in the internal ratings maps for Wholesale and Retail facilities in the Credit risk section of our 2020 Annual Report.

(Millions of Canadian dollars)	As at							
	July 31, 2021				October 31, 2020			
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
Retail								
Loans outstanding – Residential mortgages								
Low risk	\$ 302,488	\$ 1,232	\$ –	\$ 303,720	\$ 270,396	\$ 2,848	\$ –	\$ 273,244
Medium risk	14,338	2,111	–	16,449	15,230	3,307	–	18,537
High risk	3,743	678	–	4,421	4,346	1,467	–	5,813
Not rated (1)	44,326	871	–	45,197	43,176	936	–	44,112
Impaired	–	–	671	671	–	–	638	638
	364,895	4,892	671	370,458	333,148	8,558	638	342,344
Items not subject to impairment (2)				252				253
Total				\$ 370,710				\$ 342,597
Loans outstanding – Personal								
Low risk	\$ 71,270	\$ 631	\$ –	\$ 71,901	\$ 71,245	\$ 1,084	\$ –	\$ 72,329
Medium risk	4,445	5,017	–	9,462	3,974	5,415	–	9,389
High risk	736	1,007	–	1,743	817	1,416	–	2,233
Not rated (1)	8,760	107	–	8,867	7,704	144	–	7,848
Impaired	–	–	211	211	–	–	212	212
Total	\$ 85,211	\$ 6,762	\$ 211	\$ 92,184	\$ 83,740	\$ 8,059	\$ 212	\$ 92,011
Loans outstanding – Credit cards								
Low risk	\$ 12,438	\$ 23	\$ –	\$ 12,461	\$ 11,824	\$ 63	\$ –	\$ 11,887
Medium risk	1,537	1,802	–	3,339	1,596	2,360	–	3,956
High risk	137	893	–	1,030	132	1,105	–	1,237
Not rated (1)	480	43	–	523	490	56	–	546
Total	\$ 14,592	\$ 2,761	\$ –	\$ 17,353	\$ 14,042	\$ 3,584	\$ –	\$ 17,626
Loans outstanding – Small business (3)								
Low risk	\$ 8,160	\$ 313	\$ –	\$ 8,473	\$ 2,034	\$ 172	\$ –	\$ 2,206
Medium risk	1,603	964	–	2,567	1,976	1,143	–	3,119
High risk	281	211	–	492	126	192	–	318
Not rated (1)	4	–	–	4	9	–	–	9
Impaired	–	–	107	107	–	–	90	90
Total	\$ 10,048	\$ 1,488	\$ 107	\$ 11,643	\$ 4,145	\$ 1,507	\$ 90	\$ 5,742
Undrawn loan commitments – Retail								
Low risk	\$ 228,038	\$ 465	\$ –	\$ 228,503	\$ 214,176	\$ 887	\$ –	\$ 215,063
Medium risk	9,618	119	–	9,737	10,402	291	–	10,693
High risk	1,198	103	–	1,301	1,141	129	–	1,270
Not rated (1)	4,814	97	–	4,911	5,238	117	–	5,355
Total	\$ 243,668	\$ 784	\$ –	\$ 244,452	\$ 230,957	\$ 1,424	\$ –	\$ 232,381
Wholesale – Loans outstanding (3)								
Investment grade	\$ 56,483	\$ 189	\$ –	\$ 56,672	\$ 50,998	\$ 328	\$ –	\$ 51,326
Non-investment grade	116,165	16,664	–	132,829	112,434	26,575	–	139,009
Not rated (1)	8,606	427	–	9,033	7,093	432	–	7,525
Impaired	–	–	1,572	1,572	–	–	2,235	2,235
	181,254	17,280	1,572	200,106	170,525	27,335	2,235	200,095
Items not subject to impairment (2)				10,633				8,560
Total				\$ 210,739				\$ 208,655
Undrawn loan commitments – Wholesale								
Investment grade	\$ 244,033	\$ 70	\$ –	\$ 244,103	\$ 242,244	\$ 1,022	\$ –	\$ 243,266
Non-investment grade	112,979	11,182	–	124,161	92,262	21,581	–	113,843
Not rated (1)	3,341	2	–	3,343	3,918	–	–	3,918
Total	\$ 360,353	\$ 11,254	\$ –	\$ 371,607	\$ 338,424	\$ 22,603	\$ –	\$ 361,027

- (1) In certain cases where an internal risk rating is not assigned, we use other approved credit risk assessment or rating methodologies, policies and tools to manage our credit risk.
- (2) Items not subject to impairment are loans held at FVTPL.
- (3) Commencing Q2 2021, certain loans are now classified as Retail – Small business and were previously classified as Wholesale, reflecting an alignment with capital measurement and reporting.

Loans past due but not impaired (1), (2)

(Millions of Canadian dollars)	As at					
	July 31, 2021			October 31, 2020		
	30 to 89 days	90 days and greater	Total	30 to 89 days	90 days and greater	Total
Retail	\$ 1,033	\$ 130	\$ 1,163	\$ 1,013	\$ 129	\$ 1,142
Wholesale	619	2	621	574	13	587
	\$ 1,652	\$ 132	\$ 1,784	\$ 1,587	\$ 142	\$ 1,729

- (1) Excludes loans less than 30 days past due as they are not generally representative of the borrowers' ability to meet their payment obligations.
- (2) Loans in our payment deferral programs established to help clients manage through the challenges of the COVID-19 pandemic 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-aging 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.

Note 6 Deposits

(Millions of Canadian dollars)	As at							
	July 31, 2021				October 31, 2020			
	Demand (1)	Notice (2)	Term (3)	Total	Demand (1)	Notice (2)	Term (3)	Total
Personal	\$ 204,925	\$ 62,952	\$ 90,623	\$ 358,500	\$ 182,745	\$ 61,761	\$ 98,546	\$ 343,052
Business and government	345,285	19,911	315,217	680,413	315,472	16,585	292,254	624,311
Bank	13,412	837	31,716	45,965	12,502	956	31,064	44,522
	\$ 563,622	\$ 83,700	\$ 437,556	\$ 1,084,878	\$ 510,719	\$ 79,302	\$ 421,864	\$ 1,011,885
Non-interest-bearing (4)								
Canada	\$ 146,620	\$ 7,776	\$ 809	\$ 155,205	\$ 123,402	\$ 7,390	\$ 368	\$ 131,160
United States	51,082	–	–	51,082	43,831	–	–	43,831
Europe (5)	527	–	–	527	654	–	–	654
Other International	7,560	–	–	7,560	7,372	–	–	7,372
Interest-bearing (4)								
Canada	308,511	19,674	314,159	642,344	287,046	19,036	310,492	616,574
United States	6,816	55,491	71,033	133,340	7,190	52,046	57,037	116,273
Europe (5)	36,229	759	37,895	74,883	33,810	830	37,250	71,890
Other International	6,277	–	13,660	19,937	7,414	–	16,717	24,131
	\$ 563,622	\$ 83,700	\$ 437,556	\$ 1,084,878	\$ 510,719	\$ 79,302	\$ 421,864	\$ 1,011,885

- (1) Demand deposits are deposits for which we do not have the right to require notice of withdrawal, which includes both savings and chequing accounts.
- (2) Notice deposits are deposits for which we can legally require notice of withdrawal. These deposits are primarily savings accounts.
- (3) Term deposits are deposits payable on a fixed date, and include term deposits, guaranteed investment certificates and similar instruments.
- (4) The geographical splits of the deposits are based on the point of origin of the deposits and where the revenue is recognized. As at July 31, 2021, deposits denominated in U.S. dollars, British pounds, Euro and other foreign currencies were \$394.3 billion, \$32.1 billion, \$43.1 billion and \$28.0 billion, respectively (October 31, 2020 – \$347.5 billion, \$31.9 billion, \$46.6 billion and \$33.4 billion, respectively).
- (5) Europe includes the United Kingdom, Luxembourg, the Channel Islands, France and Italy.

Contractual maturities of term deposits

(Millions of Canadian dollars)	As at	
	July 31 2021	October 31 2020 (1)
Within 1 year:		
less than 3 months	\$ 146,400	\$ 123,290
3 to 6 months	54,116	65,782
6 to 12 months	89,408	80,737
1 to 2 years	34,240	34,400
2 to 3 years	39,332	42,907
3 to 4 years	22,471	21,136
4 to 5 years	23,854	22,885
Over 5 years	27,735	30,727
	\$ 437,556	\$ 421,864
Aggregate amount of term deposits in denominations of one hundred thousand dollars or more	\$ 407,000	\$ 388,000

- (1) Amounts previously presented were reclassified to reflect the contractual maturities of certain term deposits.

Note 7 Employee benefits – Pension and other post-employment benefits

We offer a number of defined benefit and defined contribution plans which provide pension and post-employment benefits to eligible employees. The following tables present the composition of our pension and other post-employment benefit expense and the effects of remeasurements recorded in other comprehensive income.

Pension and other post-employment benefit expense

(Millions of Canadian dollars)	For the three months ended			
	Pension plans		Other post-employment benefit plans	
	July 31 2021	July 31 2020	July 31 2021	July 31 2020
Current service costs	\$ 90	\$ 92	\$ 11	\$ 13
Past service costs	–	–	–	5
Net interest expense (income)	2	4	15	14
Remeasurements of other long term benefits	–	–	–	5
Administrative expense	3	4	–	–
Defined benefit pension expense	95	100	26	37
Defined contribution pension expense	56	56	–	–
	\$ 151	\$ 156	\$ 26	\$ 37

(Millions of Canadian dollars)	For the nine months ended			
	Pension plans		Other post-employment benefit plans	
	July 31 2021	July 31 2020	July 31 2021	July 31 2020
Current service costs	\$ 270	\$ 275	\$ 33	\$ 36
Past service costs	–	–	–	5
Net interest expense (income)	6	14	43	44
Remeasurements of other long term benefits	–	–	(10)	9
Administrative expense	9	13	–	–
Defined benefit pension expense	285	302	66	94
Defined contribution pension expense	179	174	–	–
	\$ 464	\$ 476	\$ 66	\$ 94

Pension and other post-employment benefit remeasurements (1)

(Millions of Canadian dollars)	For the three months ended			
	Defined benefit pension plans		Other post-employment benefit plans	
	July 31 2021	July 31 2020	July 31 2021	July 31 2020
Actuarial (gains) losses:				
Changes in financial assumptions (2)	\$ 732	\$ 1,587	\$ 46	\$ 147
Experience adjustments	–	–	(1)	(7)
Return on plan assets (excluding interest based on discount rate)	(882)	(977)	–	–
	\$ (150)	\$ 610	\$ 45	\$ 140

(Millions of Canadian dollars)	For the nine months ended			
	Defined benefit pension plans		Other post-employment benefit plans	
	July 31 2021	July 31 2020	July 31 2021	July 31 2020
Actuarial (gains) losses:				
Changes in financial assumptions (2)	\$ (660)	\$ 1,625	\$ (89)	\$ 148
Experience adjustments	–	–	(4)	(9)
Return on plan assets (excluding interest based on discount rate)	(1,679)	(1,000)	–	–
	\$ (2,339)	\$ 625	\$ (93)	\$ 139

(1) Market based assumptions, including Changes in financial assumptions and Return on plan assets, are reviewed on a quarterly basis. All other assumptions are updated during our annual review of plan assumptions.

(2) Changes in financial assumptions in our defined benefit pension plans primarily relate to changes in discount rates.

Note 8 Income taxes

Tax examinations and assessments

During the third quarter of 2021, we received a reassessment from the Canada Revenue Agency (CRA) in respect of the 2016 taxation year, which suggests that Royal Bank of Canada owes additional taxes of approximately \$298 million as they denied the deductibility of certain dividends. This amount represents the maximum additional taxes owing for that year. The reassessment is consistent with the previously received reassessments as described in Note 22 of our 2020 Annual Consolidated Financial Statements. It is possible that the CRA will reassess us for significant additional income taxes for subsequent years on the same basis.

During the first quarter of 2021, we received a reassessment that is consistent with the previously received proposal letters from the CRA in respect of the 2015 taxation year.

In all cases, we are confident that our tax filing position was appropriate and intend to defend ourselves vigorously.

Note 9 Significant capital and funding transactions

Preferred shares and other equity instruments

On November 2, 2020, we issued \$1,250 million of Limited Recourse Capital Notes Series 2 (LRCN Series 2) with recourse limited to assets (Trust Assets) held by a third-party trustee in a consolidated trust (Limited Recourse Trust). The Trust Assets consist of \$1,250 million of our First Preferred Shares, Series BR (Series BR Preferred Shares), issued concurrently with LRCN Series 2 at a price of \$1,000 per Series BR Preferred Share.

The price per LRCN Series 2 note is \$1,000 and will bear interest paid semi-annually at a fixed rate of 4.0% per annum until February 24, 2026 and thereafter at a rate per annum, reset every fifth year, equal to the 5-year Government of Canada Yield plus 3.617% until maturity on February 24, 2081.

On June 8, 2021, we issued \$1,000 million of Limited Recourse Capital Notes Series 3 (LRCN Series 3) with recourse limited to assets (Trust Assets) held by a third-party trustee in a consolidated trust (Limited Recourse Trust). The Trust Assets consist of \$1,000 million of our First Preferred Shares, Series BS (Series BS Preferred Shares), issued concurrently with LRCN Series 3 at a price of \$1,000 per Series BS Preferred Share.

The price per LRCN Series 3 note is \$1,000 and will bear interest paid semi-annually at a fixed rate of 3.65% per annum until November 24, 2026 and thereafter at a rate per annum, reset every fifth year, equal to the 5-year Government of Canada Yield plus 2.665% until maturity on November 24, 2081.

In the event of (i) non-payment of interest on any interest payment date, (ii) non-payment of the redemption price in case of a redemption of LRCN Series 2 and LRCN Series 3, (iii) non-payment of principal at the maturity of LRCN Series 2 and LRCN Series 3, or (iv) an event of default on the notes, noteholders will have recourse only to the Trust Assets and each noteholder will be entitled to receive its pro rata share of the Trust Assets. In such an event, the delivery of the Trust Assets will represent the full and complete extinguishment of our obligations under LRCN Series 2 and LRCN Series 3.

LRCN Series 2 and LRCN Series 3 are redeemable on or prior to maturity to the extent we redeem Series BR Preferred Shares and Series BS Preferred Shares respectively on certain redemption dates as set out in the terms of Series BR Preferred Shares and Series BS Preferred Shares and subject to the consent and approval of the Office of the Superintendent of Financial Institutions (OSFI).

The terms of Series BR Preferred Shares, Series BS Preferred Shares, LRCN Series 2 and LRCN Series 3 include non-viability contingency capital (NVCC) provisions necessary for them to qualify as Tier 1 regulatory capital under Basel III. NVCC provisions require the conversion of the instrument into a variable number of common shares in the event that OSFI deems the Bank non-viable or a federal or provincial government in Canada publicly announces that the Bank has accepted or agreed to accept a capital injection. In such an event, LRCN Series 2 and LRCN Series 3 will be automatically redeemed and the redemption price will be satisfied by the delivery of Trust Assets, which will consist of common shares pursuant to an automatic conversion of Series BR Preferred Shares and Series BS Preferred Shares, respectively. The terms of Series BR Preferred Shares and Series BS Preferred Shares include an automatic conversion formula with a conversion price based on the greater of: (i) a floor price of \$5.00 and (ii) the current market price of our common shares based on the volume weighted average trading price of our common shares on the Toronto Stock Exchange. The number of common shares issued in respect of each Series BR Preferred Shares and Series BS Preferred Shares will be determined by dividing the share value of Series BR Preferred Shares and Series BS Preferred Shares (including declared and unpaid dividends) by the conversion price. The number of common shares delivered to each noteholder will be based on such noteholder's pro rata interest in the Trust Assets.

LRCN Series 2 and LRCN Series 3 are compound instruments with both equity and liability features as payments of interest and principal in cash are made at our discretion. Non-payment of interest and principal in cash does not constitute an event of default and will trigger a delivery of Series BR Preferred Shares and Series BS Preferred Shares. The liability component of the notes has a nominal value and, as a result, the full proceeds received have been presented as equity.

On May 24, 2021, we redeemed all 29 million Non-Cumulative 5-Year Rate Reset First Preferred Shares, Series BK at a redemption price of \$25 per share.

Subordinated debentures

On January 20, 2021, we redeemed all \$1,500 million of our outstanding NVCC 3.31% subordinated debentures due on January 20, 2026 for 100% of their principal amount plus interest accrued to, but excluding, the redemption date.

Note 9 Significant capital and funding transactions (continued)

On January 28, 2021, we issued \$1,000 million of NVCC subordinated debentures. The notes bear interest at a fixed rate of 1.67% per annum until January 28, 2028, and at the three-month Canadian Dollar Offered Rate plus 0.55% thereafter until their maturity on January 28, 2033.

Common shares issued ⁽¹⁾

(Millions of Canadian dollars, except number of shares)	For the three months ended			
	July 31, 2021		July 31, 2020	
	Number of shares (thousands)	Amount	Number of shares (thousands)	Amount
Issued in connection with share-based compensation plans ⁽²⁾	311	\$ 24	235	\$ 18
Purchased for cancellation ⁽³⁾	–	–	–	–
	311	\$ 24	235	\$ 18

(Millions of Canadian dollars, except number of shares)	For the nine months ended			
	July 31, 2021		July 31, 2020	
	Number of shares (thousands)	Amount	Number of shares (thousands)	Amount
Issued in connection with share-based compensation plans ⁽²⁾	1,131	\$ 85	782	\$ 62
Purchased for cancellation ⁽³⁾	–	–	(7,860)	(97)
	1,131	\$ 85	(7,078)	\$ (35)

(1) The requirements of our dividend reinvestment plan (DRIP) are satisfied through either open market share purchases or shares issued from treasury. During the three and nine months ended July 31, 2021 and July 31, 2020, our DRIP's requirements were satisfied through open market share purchases.

(2) Amounts include cash received for stock options exercised during the period and the fair value adjustment to stock options.

(3) During the three and nine months ended July 31, 2021, we did not purchase for cancellation any common shares. During the three months ended July 31, 2020, we did not purchase for cancellation any common shares. During the nine months ended July 31, 2020, we purchased for cancellation common shares at a total fair value of \$814 million (average cost of \$103.62 per share), with a book value of \$97 million (book value of \$12.34 per share).

Note 10 Earnings per share

(Millions of Canadian dollars, except share and per share amounts)	For the three months ended		For the nine months ended	
	July 31 2021	July 31 2020	July 31 2021	July 31 2020
Basic earnings per share				
Net income	\$ 4,296	\$ 3,201	\$ 12,158	\$ 8,191
Dividends on preferred shares and distributions on other equity instruments	(55)	(65)	(189)	(194)
Net income attributable to non-controlling interests	(4)	(4)	(7)	(6)
Net income available to common shareholders	\$ 4,237	\$ 3,132	\$ 11,962	\$ 7,991
Weighted average number of common shares (in thousands)	1,424,614	1,422,705	1,424,278	1,424,364
Basic earnings per share (in dollars)	\$ 2.97	\$ 2.20	\$ 8.40	\$ 5.61
Diluted earnings per share				
Net income available to common shareholders	\$ 4,237	\$ 3,132	\$ 11,962	\$ 7,991
Dilutive impact of exchangeable shares	–	4	–	11
Net income available to common shareholders including dilutive impact of exchangeable shares	\$ 4,237	\$ 3,136	\$ 11,962	\$ 8,002
Weighted average number of common shares (in thousands)	1,424,614	1,422,705	1,424,278	1,424,364
Stock options ⁽¹⁾	1,987	779	1,596	1,091
Issuable under other share-based compensation plans	597	757	674	753
Exchangeable shares	–	3,536	–	3,335
Average number of diluted common shares (in thousands)	1,427,198	1,427,777	1,426,548	1,429,543
Diluted earnings per share (in dollars)	\$ 2.97	\$ 2.20	\$ 8.39	\$ 5.60

(1) The dilutive effect of stock options was calculated using the treasury stock method. When the exercise price of options outstanding is greater than the average market price of our common shares, the options are excluded from the calculation of diluted earnings per share. For the three months ended July 31, 2021, no outstanding options were excluded from the calculation of diluted earnings per share. For the three months ended July 31, 2020, an average of 2,941,928 outstanding options with an average exercise price of \$101.06 were excluded from the calculation of diluted earnings per share. For the nine months ended July 31, 2021, no outstanding options were excluded from the calculation of diluted earnings per share. For the nine months ended July 31, 2020, an average of 2,764,422 outstanding options with an average exercise price of \$100.82 were excluded from the calculation of diluted earnings per share.

Note 11 Legal and regulatory matters

We are a large global institution that is subject to many different complex legal and regulatory requirements that continue to evolve. We are and have been subject to a variety of legal proceedings, including civil claims and lawsuits, regulatory examinations, investigations, audits and requests for information by various governmental regulatory agencies and law enforcement authorities in various jurisdictions. Some of these matters may involve novel legal theories and interpretations and may be advanced under criminal as well as civil statutes, and some proceedings could result in the imposition of civil, regulatory enforcement or criminal penalties. We review the status of all proceedings on an ongoing basis and will exercise judgment in resolving them in such manner as we believe to be in our best interest. This is an area of significant judgment and uncertainty and the extent of our financial and other exposure to these proceedings after taking into account current accruals could be material to our results of operations in any particular period.

Our significant legal proceeding and regulatory matters are described in Note 25 of our 2020 Annual Consolidated Financial Statements as updated below.

Royal Bank of Canada Trust Company (Bahamas) Limited proceedings

On January 6, 2021, the French Supreme Court issued a judgment reversing the decision of the French Court of Appeal dated June 29, 2018 and sent the case back to the French Court of Appeal for rehearing.

Interchange fees litigation

A settlement agreement has been reached with class counsel, contingent on court approval. This settlement upon final court approval would resolve the claims of all Canadian merchants subject to limited rights to opt-out for Quebec merchants.

Foreign exchange matters

Royal Bank of Canada and multiple other foreign exchange dealers were named in actions filed in the U.K. and Brazil alleging, among other things, collusive behaviour in global foreign exchange trading.

With respect to the U.S. lawsuit filed by certain institutional plaintiffs who had opted-out of participating in the August 2018 settlement, the plaintiffs refiled their claim and in July 2021, the U.S. District Court granted a motion in favour of RBC Capital Markets to dismiss the action, however, denied the motion as to Royal Bank of Canada.

Note 12 Results by business segment

(Millions of Canadian dollars)	For the three months ended July 31, 2021						
	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets (1)	Corporate Support (1)	Total
Net interest income (2)	\$ 3,206	\$ 682	\$ –	\$ 127	\$ 1,122	\$ (85)	\$ 5,052
Non-interest income	1,445	2,742	1,754	390	1,341	32	7,704
Total revenue	4,651	3,424	1,754	517	2,463	(53)	12,756
Provision for credit losses	(179)	(21)	–	(3)	(337)	–	(540)
Insurance policyholder benefits, claims and acquisition expense	–	–	1,304	–	–	–	1,304
Non-interest expense	1,998	2,493	155	401	1,363	10	6,420
Income (loss) before income taxes	2,832	952	295	119	1,437	(63)	5,572
Income taxes (recoveries)	719	214	61	31	308	(57)	1,276
Net income	\$ 2,113	\$ 738	\$ 234	\$ 88	\$ 1,129	\$ (6)	\$ 4,296
Non-interest expense includes:							
Depreciation and amortization	\$ 236	\$ 216	\$ 15	\$ 50	\$ 125	\$ 1	\$ 643

(Millions of Canadian dollars)	For the three months ended July 31, 2020						
	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets (1)	Corporate Support (1)	Total
Net interest income (2)	\$ 3,079	\$ 699	\$ –	\$ 89	\$ 1,335	\$ (63)	\$ 5,139
Non-interest income	1,269	2,465	2,212	395	1,413	27	7,781
Total revenue	4,348	3,164	2,212	484	2,748	(36)	12,920
Provision for credit losses	527	74	–	(4)	78	–	675
Insurance policyholder benefits, claims and acquisition expense	–	–	1,785	–	–	–	1,785
Non-interest expense	1,985	2,361	140	388	1,471	35	6,380
Income (loss) before income taxes	1,836	729	287	100	1,199	(71)	4,080
Income taxes (recoveries)	469	167	71	24	250	(102)	879
Net income	\$ 1,367	\$ 562	\$ 216	\$ 76	\$ 949	\$ 31	\$ 3,201
Non-interest expense includes:							
Depreciation and amortization	\$ 227	\$ 223	\$ 14	\$ 56	\$ 131	\$ –	\$ 651

Note 12 Results by business segment (continued)

(Millions of Canadian dollars)	For the nine months ended July 31, 2021						
	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets (1)	Corporate Support (1)	Total
Net interest income (2)	\$ 9,452	\$ 2,014	\$ –	\$ 305	\$ 3,442	\$ (272)	\$ 14,941
Non-interest income	4,289	8,191	4,099	1,311	4,447	39	22,376
Total revenue	13,741	10,205	4,099	1,616	7,889	(233)	37,317
Provision for credit losses	21	(52)	–	(7)	(487)	(1)	(526)
Insurance policyholder benefits, claims and acquisition expense	–	–	2,859	–	–	–	2,859
Non-interest expense	5,891	7,551	444	1,177	4,272	6	19,341
Income (loss) before income taxes	7,829	2,706	796	446	4,104	(238)	15,643
Income taxes (recoveries)	2,015	628	174	115	837	(284)	3,485
Net income	\$ 5,814	\$ 2,078	\$ 622	\$ 331	\$ 3,267	\$ 46	\$ 12,158
Non-interest expense includes:							
Depreciation and amortization	\$ 689	\$ 654	\$ 44	\$ 146	\$ 376	\$ 3	\$ 1,912

(Millions of Canadian dollars)	For the nine months ended July 31, 2020						
	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets (1)	Corporate Support (1)	Total
Net interest income (2)	\$ 9,454	\$ 2,174	\$ –	\$ 221	\$ 3,952	\$ 24	\$ 15,825
Non-interest income	3,904	6,978	4,403	1,569	3,657	(247)	20,264
Total revenue	13,358	9,152	4,403	1,790	7,609	(223)	36,089
Provision for credit losses	2,575	163	1	10	1,174	1	3,924
Insurance policyholder benefits, claims and acquisition expense	–	–	3,222	–	–	–	3,222
Non-interest expense	5,916	6,900	441	1,182	4,197	64	18,700
Income (loss) before income taxes	4,867	2,089	739	598	2,238	(288)	10,243
Income taxes (recoveries)	1,282	480	162	153	302	(327)	2,052
Net income	\$ 3,585	\$ 1,609	\$ 577	\$ 445	\$ 1,936	\$ 39	\$ 8,191
Non-interest expense includes:							
Depreciation and amortization	\$ 684	\$ 656	\$ 43	\$ 160	\$ 385	\$ –	\$ 1,928

(1) Taxable equivalent basis.

(2) Interest revenue is reported net of interest expense as we rely primarily on net interest income as a performance measure.

Total assets and total liabilities by business segment

(Millions of Canadian dollars)	As at July 31, 2021						
	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets	Corporate Support	Total
Total assets	\$ 538,609	\$ 142,090	\$ 22,130	\$ 234,867	\$ 706,159	\$ 49,685	\$ 1,693,540
Total liabilities	538,555	142,086	22,285	234,781	705,735	(46,212)	1,597,230

(Millions of Canadian dollars)	As at October 31, 2020						
	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets	Corporate Support	Total
Total assets	\$ 509,679	\$ 129,706	\$ 21,253	\$ 230,695	\$ 688,054	\$ 45,161	\$ 1,624,548
Total liabilities	509,682	129,673	21,311	230,618	688,314	(41,817)	1,537,781

Note 13 Capital management

Regulatory capital and capital ratios

OSFI formally establishes risk-based capital and leverage targets for deposit-taking institutions in Canada. During the third quarter of 2021, we complied with all capital and leverage requirements, including the domestic stability buffer, imposed by OSFI.

(Millions of Canadian dollars, except percentage amounts and as otherwise noted)	As at	
	July 31 2021	October 31 2020
Capital ⁽¹⁾		
CET1 capital	\$ 73,822	\$ 68,082
Tier 1 capital	81,218	74,005
Total capital	90,736	84,928
Risk-weighted assets (RWA) used in calculation of capital ratios ⁽¹⁾		
Credit risk	\$ 436,070	\$ 448,821
Market risk	34,149	27,374
Operational risk	72,828	70,047
Total RWA	\$ 543,047	\$ 546,242
Capital ratios and Leverage ratio ⁽¹⁾		
CET1 ratio	13.6%	12.5%
Tier 1 capital ratio	15.0%	13.5%
Total capital ratio	16.7%	15.5%
Leverage ratio	5.0%	4.8%
Leverage ratio exposure (billions)	\$ 1,633.2	\$ 1,552.9

(1) Capital, RWA, and capital ratios are calculated using OSFI's Capital Adequacy Requirements (CAR) guideline and the Leverage ratio is calculated using OSFI Leverage Requirements Guideline as updated in accordance with the regulatory guidance issued by OSFI in response to the COVID-19 pandemic. Both the CAR guideline and Leverage Requirements Guideline are based on the Basel III framework.

Note 14 Subsequent events

On August 24, 2021, we redeemed all 30 million of our issued and outstanding Non-Cumulative 5-Year Rate Reset First Preferred Shares Series BM at a price of \$25 per share.

Shareholder Information

Corporate headquarters

Street address:
Royal Bank of Canada
200 Bay Street
Toronto, Ontario M5J 2J5
Canada
Tel: 1-888-212-5533

Mailing address:
P.O. Box 1
Royal Bank Plaza
Toronto, Ontario M5J 2J5
Canada
website: rbc.com

Transfer Agent and Registrar

Main Agent:
Computershare Trust Company of
Canada
1500 Robert-Bourassa Blvd.
Suite 700
Montreal, Quebec H3A 3S8
Canada
Tel: 1-866-586-7635 (Canada and
the U.S.) or 514-982-7555
(International)
Fax: 514-982-7580
website: computershare.com/rbc

Co-Transfer Agent (U.S.):
Computershare Trust Company,
N.A.
250 Royall Street
Canton, Massachusetts 02021
U.S.A.

Co-Transfer Agent (U.K.):
Computershare Investor Services
PLC
Securities Services – Registrars
P.O. Box 82, The Pavilions,
Bridgwater Road,
Bristol BS99 6ZZ
U.K.

Stock exchange listings (Symbol: RY)

Common shares are listed on:
Canada – Toronto Stock
Exchange (TSX)
U.S. – New York Stock Exchange
(NYSE)
Switzerland – Swiss Exchange
(SIX)

Preferred shares AZ, BB, BD, BF,
BH, BI, BJ and BO are listed on the
TSX. The related depository
shares of the series C-2 preferred
shares are listed on the NYSE.

Valuation day price

For Canadian income tax
purposes, Royal Bank of Canada's
common stock was quoted at
\$29.52 per share on the Valuation
Day (December 22, 1971). This is
equivalent to \$7.38 per share after
adjusting for the two-for-one
stock split of March 1981 and the
two-for-one stock split of February 1990.
The one-for-one stock dividends
in October 2000 and April
2006 did not affect the Valuation
Day amount for our common
shares.

Shareholder contacts

For dividend information, change
in share registration or address,
lost stock certificates, tax forms,
estate transfers or dividend
reinvestment, please contact:
Computershare Trust Company of
Canada
100 University Avenue, 8th Floor
Toronto, Ontario M5J 2Y1
Canada

Tel: 1-866-586-7635 (Canada and
the U.S.) or 514-982-7555
(International)
Fax: 1-888-453-0330 (Canada and
the U.S.) or 416-263-9394
(International)
email: service@computershare.com

Financial analysts, portfolio managers, institutional investors

For financial information
inquiries, please contact: Investor
Relations
Royal Bank of Canada
200 Bay Street
South Tower
Toronto, Ontario M5J 2J5
Canada
Tel: 416-955-7802

or visit our website at
rbc.com/investorrelations

Direct deposit service

Shareholders in Canada and the
U.S. may have their common
share dividends deposited directly
to their bank account by
electronic funds transfer. To
arrange for this service, please
contact our Transfer Agent and
Registrar, Computershare Trust
Company of Canada.

Eligible dividend designation

For purposes of the *Income Tax
Act* (Canada) and any
corresponding provincial and
territorial tax legislation, all
dividends (and deemed
dividends) paid by RBC to
Canadian residents on both its
common and preferred shares,
are designated as “eligible
dividends”, unless stated
otherwise.

Common share repurchases

As at July 31, 2021, we do not
have an active normal course
issuer bid (NCIB). For further
details, refer to the Capital
management section.

Dividend dates for 2021

Subject to approval by the Board of Directors

	Record dates	Payment dates
Common and preferred shares series AZ, BB, BD, BF, BH, BI, BJ and BO	January 26 April 22 July 26 October 26	February 24 May 21 August 24 November 24
Preferred shares series C-2 (US\$)	January 26 April 27 July 27 October 26	February 5 May 7 August 6 November 5

Governance

Summaries of the significant ways in which corporate governance
practices followed by RBC differ from corporate governance
practices required to be followed by U.S. domestic companies
under the NYSE listing standards are available on our website at
rbc.com/governance.

2021 Quarterly earnings release dates

First quarter	February 24
Second quarter	May 27
Third quarter	August 25
Fourth quarter	December 1

2022 Annual Meeting

The Annual Meeting of
Common Shareholders will be
held on Thursday, April 7, 2022.

Information contained in or otherwise accessible through the websites mentioned in this report to shareholders does not form a part of this report. All references to websites are inactive textual references and are for your information only.

Trademarks used in this report include the LION & GLOBE Symbol, ROYAL BANK OF CANADA, RBC, RBC INSURANCE and RBC HOMELINE PLAN which are trademarks of Royal Bank of Canada used by Royal Bank of Canada and/or by its subsidiaries under license. All other trademarks mentioned in this report, which are not the property of Royal Bank of Canada, are owned by their respective holders.

CEO AND CFO CERTIFICATIONS

SOX 302 Certification

I, David I. McKay, certify that:

1. I have reviewed this quarterly report for the period ended July 31, 2021 (the “report”) of Royal Bank of Canada (the “registrant”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: August 25, 2021

/s/ David I. McKay

Name: David I. McKay

Title: President and Chief Executive Officer

SOX 302 Certification

I, Rod Bolger, certify that:

1. I have reviewed this quarterly report for the period ended July 31, 2021 (the “report”) of Royal Bank of Canada (the “registrant”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: August 25, 2021

/s/ Rod Bolger

Name: Rod Bolger

Title: Chief Financial Officer