Royal Bank of Canada

First Quarter 2019

Royal Bank of Canada first quarter 2019 results

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

Net Income	Diluted EPS[1]	ROE[2]	CET1 Ratio
$3.2 Billion	**$2.15**	**16.7%**	**11.4%**
Continued earnings growth of 5% YoY	*Solid 7% growth YoY*	*Balanced capital deployment*	*Strong capital ratio*

TORONTO, February 22, 2019 — Royal Bank of Canada (RY on TSX and NYSE) today reported net income of $3,172 million for the quarter ended January 31, 2019, up $160 million or 5% from the prior year, with solid diluted EPS[1] growth of 7%. Results reflect solid underlying earnings growth in Personal & Commercial Banking and Insurance. Challenging market conditions impacted several business segments in the first quarter of 2019 contributing to results being flat in Wealth Management and lower results in Capital Markets and Investor & Treasury Services. Our results also reflect an increase due to foreign exchange translation and the write-down of net deferred tax assets in the prior year related to the U.S. Tax Reform.

Compared to last quarter, net income was down $78 million with higher earnings in Wealth Management, Personal & Commercial Banking, and Investor & Treasury Services. These were more than offset by lower earnings in Insurance, and Capital Markets due to challenging market conditions.

Results this quarter also reflect investments in client-facing staff and technology initiatives, as well as higher provisions for credit losses (PCL), with a total PCL ratio on loans of 34 basis points (bps). PCL on impaired loans ratio of 28 bps was up 8 bps compared to last quarter, largely due to higher provisions related to one account in Capital Markets. Our capital position remained strong, with a Common Equity Tier 1 (CET1) ratio of 11.4%. In addition, today we announced an increase to our quarterly dividend of $0.04 or 4% to $1.02 per share.

> *"Our strategy and unwavering focus on delivering value for our clients and shareholders continues to underpin our ability to consistently deliver solid results, even against a challenging market backdrop. In addition to delivering earnings of $3.2 billion, we are pleased to increase our quarterly dividend by 4% today. We remain focused on prudently managing our risks and balancing our investments for long-term growth as we transform the client journey."*
>
> *– Dave McKay, RBC President and Chief Executive Officer*

Q1 2019 Compared to Q1 2018	• Net income of $3,172 million	↑ 5%
	• Diluted EPS[1] of $2.15	↑ 7%
	• ROE[2] of 16.7%	↓ 70 bps
	• CET1 ratio of 11.4%	↑ 40 bps
Q1 2019 Compared to Q4 2018	• Net income of $3,172 million	↓ 2%
	• Diluted EPS[1] of $2.15	↓ 2%
	• ROE[2] of 16.7%	↓ 90 bps
	• CET1 ratio of 11.4%	↓ 10 bps

(1) Earnings per share (EPS).
(2) Return on Equity (ROE). This measure does not have a standardized meaning under GAAP. For further information, refer to the Key performance and non-GAAP measures section of this Q1 2019 Report to Shareholders.

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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 month period ended or as at January 31, 2019, compared to the corresponding period in the prior fiscal year and the three month period ended October 31, 2018. This MD&A should be read in conjunction with our unaudited Interim Condensed Consolidated Financial Statements for the quarter ended January 31, 2019 (Condensed Financial Statements) and related notes and our 2018 Annual Report. This MD&A is dated February 21, 2019. All amounts are in Canadian dollars, unless otherwise specified, and are based on financial statements prepared 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 2018 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 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 Q1 2019 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 liquidity and funding risk, 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, strategic, reputation, legal and regulatory environment, competitive and systemic risks and other risks discussed in the risk sections of our 2018 Annual Report and the Risk management section of this Q1 2019 Report to Shareholders; including global uncertainty, Canadian housing and household indebtedness, information technology and cyber risk, regulatory changes, digital disruption and innovation, data and third party related risks, climate change, 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 environmental and social risk.

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 Q1 2019 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 2018 Annual Report, as updated by the Economic, market and regulatory review and outlook section of this Q1 2019 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 of our 2018 Annual Report and the Risk management section of this Q1 2019 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 84,000+ employees who 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 16 million clients in Canada, the U.S. and 33 other countries. Learn more at rbc.com.

Selected financial and other highlights

	As at or for the three months ended			For the three months ended	
(Millions of Canadian dollars, except per share, number of and percentage amounts)	January 31 2019	October 31 2018	January 31 2018	Q1 2019 vs. Q4 2018	Q1 2019 vs. Q1 2018
Total revenue	$ 11,589	$ 10,669	$ 10,828	$ 920	$ 761
Provision for credit losses (PCL)	514	353	334	161	180
Insurance policyholder benefits, claims and acquisition expense (PBCAE)	1,225	494	836	731	389
Non-interest expense	5,912	5,882	5,611	30	301
Income before income taxes	3,938	3,940	4,047	(2)	(109)
Net income	$ 3,172	$ 3,250	$ 3,012	$ (78)	$ 160
Segments – net income					
Personal & Commercial Banking	$ 1,571	$ 1,538	$ 1,521	$ 33	$ 50
Wealth Management	597	553	597	44	–
Insurance	166	318	127	(152)	39
Investor & Treasury Services	161	155	219	6	(58)
Capital Markets	653	666	748	(13)	(95)
Corporate Support	24	20	(200)	4	224
Net income	$ 3,172	$ 3,250	$ 3,012	$ (78)	$ 160
Selected information					
Earnings per share (EPS) – basic	$ 2.15	$ 2.21	$ 2.02	$ (0.06)	$ 0.13
– diluted	2.15	2.20	2.01	(0.05)	0.14
Return on common equity (ROE) (1) (2)	16.7%	17.6%	17.4%	(90) bps	(70) bps
Average common equity (1)	$ 73,550	$ 71,700	$ 66,850	$ 1,850	$ 6,700
Net interest margin (NIM) – on average earning assets (1)	1.62%	1.67%	1.65%	(5) bps	(3) bps
PCL on loans as a % of average net loans and acceptances	0.34%	0.23%	0.24%	11 bps	10 bps
PCL on impaired loans as a % of average net loans and acceptances	0.28%	0.20%	0.23%	8 bps	5 bps
Gross impaired loans (GIL) as a % of loans and acceptances	0.46%	0.37%	0.45%	9 bps	1 bps
Liquidity coverage ratio (LCR) (3)	128%	123%	122%	500 bps	600 bps
Capital ratios and Leverage ratio (4)					
Common Equity Tier 1 (CET1) ratio	11.4%	11.5%	11.0%	(10) bps	40 bps
Tier 1 capital ratio	12.7%	12.8%	12.4%	(10) bps	30 bps
Total capital ratio	14.5%	14.6%	14.4%	(10) bps	10 bps
Leverage ratio	4.3%	4.4%	4.2%	(10) bps	10 bps
Selected balance sheet and other information (5)					
Total assets	$ 1,366,207	$ 1,334,734	$ 1,276,275	$ 31,473	$ 89,932
Securities, net of applicable allowance	235,832	222,866	222,262	12,966	13,570
Loans, net of allowance for loan losses	589,820	576,818	538,044	13,002	51,776
Derivative related assets	84,816	94,039	105,512	(9,223)	(20,696)
Deposits	852,564	837,046	800,020	15,518	52,544
Common equity	74,147	73,552	66,430	595	7,717
Total capital risk-weighted assets	508,512	496,459	466,758	12,053	41,754
Assets under management (AUM)	688,000	671,000	656,700	17,000	31,300
Assets under administration (AUA) (6)	5,363,900	5,533,700	5,653,500	(169,800)	(289,600)
Common share information					
Shares outstanding (000s) – average basic	1,437,074	1,440,207	1,451,781	(3,133)	(14,707)
– average diluted	1,443,195	1,446,514	1,458,714	(3,319)	(15,519)
– end of period (7)	1,435,073	1,438,794	1,443,915	(3,721)	(8,842)
Dividends declared per common share	$ 0.98	$ 0.98	$ 0.91	$ –	$ 0.07
Dividend yield (8)	4.1%	3.8%	3.5%	30 bps	60 bps
Common share price (RY on TSX) (9)	$ 100.02	$ 95.92	$ 105.32	$ 4.10	$ (5.30)
Market capitalization (TSX) (9)	143,536	138,009	152,089	5,527	(8,553)
Business information (number of)					
Employees (full-time equivalent) (FTE)	82,108	81,870	78,648	238	3,460
Bank branches	1,334	1,333	1,368	1	(34)
Automated teller machines (ATMs)	4,568	4,537	4,660	31	(92)
Period average US$ equivalent of C$1.00 (10)	$ 0.749	$ 0.767	$ 0.794	$ (0.018)	$ (0.045)
Period-end US$ equivalent of C$1.00	$ 0.761	$ 0.760	$ 0.813	$ 0.001	$ (0.052)

(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) These measures 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 OSFI's Liquidity Adequacy Requirements (LAR) guideline. For further details, refer to the Liquidity and funding risk section.
(4) The Leverage ratio is a regulatory measure under the Basel III framework. For further details, refer to the Capital management section.
(5) Represents period-end spot balances.
(6) AUA includes $16.6 billion and $8.5 billion (October 31, 2018 – $16.7 billion and $9.6 billion; January 31, 2018 – $18.2 billion and $9.1 billion) of securitized residential mortgages and credit card loans, respectively.
(7) Effective Q4 2018, Common shares outstanding includes the impact of treasury shares. Comparative amounts have been adjusted to conform with this presentation.
(8) Defined as dividends per common share divided by the average of the high and low share price in the relevant period.
(9) Based on TSX closing market price at period-end.
(10) Average amounts are calculated using month-end spot rates for the period.

Economic, market and regulatory review and outlook – data as at February 21, 2019

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

Canada

The Canadian economy is estimated to have grown by 1.1%[1] during the last calendar quarter of 2018, which is down from a 2.0%[1] increase in the previous calendar quarter. The slowdown partially reflected a pullback in the Canadian energy sector, while consumer spending and housing activity remained soft. Some local housing markets have yet to fully stabilize following a decline in resales in calendar 2018. Despite slower GDP growth toward the end of last year, job growth has remained strong. The unemployment rate rose to 5.8% in January 2019 as more Canadians looked for work, but that rate remains close to historical lows. The Bank of Canada (BoC) held its overnight rate steady at 1.75% in January and struck a fairly balanced tone in light of the slowdown. We expect a return to near 2% growth later this year with non-energy exports and business investment offsetting a slowdown in consumer spending and housing.

U.S.

Overall growth in the U.S. economy is estimated to have slowed to 2.5%[1] in the fourth calendar quarter of 2018, down from the 3.4%[1] increase in the previous calendar quarter. Two months of healthy consumer spending in the last calendar quarter was capped off by an unexpected decline in December's retail sales. Manufacturing output increased at a solid rate in the last calendar quarter of 2018 despite indicators pointing to slower growth. The labour market remained strong toward the end of calendar 2018 and wages continued to rise. We expect the U.S. economy will continue to grow at a solid pace throughout calendar 2019 despite recent softening in sentiment indicators. Equity markets rebounded in January following sharp declines during the last calendar quarter in 2018. The Federal Reserve (Fed) also expects sustained economic expansion and low unemployment, but has emphasized a more patient approach to setting monetary policy amid growing risks to the outlook. Those include signs of slowing global growth, persistent uncertainty over trade policy, some sustained tightening in financial conditions and a government shutdown that will impact growth in the current calendar quarter.

Europe

The Euro area's growth was stagnant in the fourth calendar quarter of 2018 with GDP growth remaining at 0.2%. Some temporary factors, including production issues in the German auto sector and labour disruptions in France, were behind the loss of momentum, and export growth was hampered by a slowdown in some emerging market economies. In the U.K., rising uncertainty over Brexit was likely a significant factor to its loss of growth momentum, adversely impacting business sentiment and investment. Labour markets in the Euro area and the U.K. continued to improve toward the end of the calendar year, however, recent indicators point to a slowdown in hiring activity. We expect growth within the Euro area and the U.K. to remain soft over the first half of 2019 as geopolitical uncertainty persists.

Financial markets

Equity markets were under downward pressure toward the end of the last calendar year due to concerns about rising interest rates, geopolitical tensions and slowing global growth. Both the S&P 500 Index and the S&P/TSX Composite experienced double-digit declines in the fourth calendar quarter of 2018. However, the indices partially rebounded in January. Key foreign indices experienced similar movements. Flattening in the U.S. yield curve may have also contributed to the increase in market volatility as investors worry the end of the business cycle is drawing closer.

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 any adverse business or financial impacts. Such impacts could result from new or amended laws or regulations and the expectations of those who enforce them. A high level summary of the key regulatory changes that have the potential to increase our costs, impact our profitability, and increase the complexity of our operations are disclosed in the Legal and regulatory environment risk section of our 2018 Annual Report, as updated below.

Global Uncertainty

Trade policy remains a risk to the global economic outlook, including the ratification of the Canada-United States-Mexico Agreement (CUSMA), the outcome of the Brexit negotiations, and tensions between the U.S. and China. While Canada, the U.S., and Mexico have successfully renegotiated the North American Free Trade Agreement, the new CUSMA deal has yet to be ratified and could face challenges in a divided U.S. Congress. The outcome of the Brexit negotiations and its resulting impact on global trade also remains uncertain. Although tension remains between the U.S. and China, trade discussions are ongoing between the two countries, and there may be a further extension on when the U.S. will increase tariffs on Chinese imports, which is currently set at March 1, 2019. These ongoing concerns have contributed to the International Monetary Fund further lowering its 2019 global growth projections in January, with the possibility for additional downgrades in the event of further escalation in trade tensions.

Consumer Protection

The Canadian federal government has focused its attention on issues relating to consumer protection and the sales practices of banks. While the government's proposed legislative changes to consumer protection provisions applicable to banks was approved on December 13, 2018, the government remains in the early stages of developing a regulatory framework to support the new provisions.

1 Annualized rate

Privacy
Legislative developments in data privacy are being closely monitored following the enactment of the General Data Protection Regulation (GDPR). Data privacy risks remain a key focus, and European data protection authorities have issued the first significant fines to certain non-financial services entities in January 2019.

London Interbank Offered Rate (LIBOR)
LIBOR is the most widely referenced benchmark interest rate across the globe for derivatives, bonds, loans and other floating rate instruments; however, there is a regulator-led push to transition the market from LIBOR to alternative risk-free, or nearly risk-free, rates that are based on actual overnight transactions. In addition to the U.S. and U.K., regulators internationally, including the Bank of Canada, have warned the market they will need to be prepared for LIBOR to be discontinued at the end of 2021. Derivatives, floating rate notes and other financial contracts whose terms extend beyond 2021, and that refer to LIBOR as the reference rate, will be impacted. At this time, local jurisdictions are evaluating the potential impacts and solutions for replacement benchmark rates.

Other Regulatory Initiatives Impacting Financial Services in Canada
On January 11, 2019, the federal government released a consultation paper on the merits of open banking. The government will also be holding roundtables and anticipates that the Advisory Committee on this issue will provide a report to the Minister of Finance following the completion of its work.

United States Regulatory Initiatives
Policymakers continue to consider reforms to various U.S. regulations, certain of which may, if implemented, result in reduced complexity of the U.S. regulatory framework and lower compliance costs. The Fed is expected to release a proposal in March 2019 to tailor its enhanced prudential standards applicable to foreign bank organizations.

United States Tax Reform
Regulations implementing and/or clarifying certain aspects of the U.S. Tax Cuts and Jobs Act legislation (U.S. Tax Reform) are being released on a rolling basis. In December 2018, the U.S. Treasury released proposed regulations clarifying some of the rules for calculating a Base Erosion Anti-Abuse Tax (BEAT) as well as proposed regulations relating to deductions on certain cross-border interest and royalty payments (the Anti-Hybrid rules). We are currently reviewing the impact of these proposed regulations.

U.K. and European Regulatory Reform
The U.K. remains in negotiations with regards to its exit from the European Union, scheduled to take place on March 29, 2019. Until the date of its exit or, if there is a transition period, until the period expires, the U.K. will continue to remain an EU Member State, subject to all EU legislation. Other forthcoming regulatory initiatives include the transaction reporting of securities financing transactions, which is expected to take effect in the first calendar quarter of 2020, extended from its previous effective date of the first calendar quarter of 2019.

For a discussion on risk factors resulting from these and other regulatory developments which may affect our business and financial results, refer to the Risk management – Top and emerging risks and Legal and regulatory environment risk sections of our 2018 Annual Report and the Capital, liquidity and other regulatory developments section of this Q1 2019 Report to Shareholders. For further details on our framework and activities to manage risks, refer to the risk and Capital management sections of our 2018 Annual Report and the Risk management and Capital management sections of this Q1 2019 Report to Shareholders.

Financial performance

Overview

Q1 2019 vs. Q1 2018
Net income of $3,172 million was up $160 million or 5% from a year ago. Diluted earnings per share (EPS) of $ 2.15 was up $0.14 or 7% and return on common equity (ROE) of 16.7% was down 70 bps from 17.4% last year. Our Common Equity Tier 1 (CET1) ratio of 11.4% was up 40 bps from a year ago.

Our results reflected solid earnings growth in Personal & Commercial Banking and Insurance, and consistent earnings in Wealth Management, partially offset by lower results in Capital Markets and Investor & Treasury Services. Our results also reflect an increase due to foreign exchange translation and the impact in the prior year of the U.S. Tax Reform which resulted in the write-down of net deferred tax assets.

Personal & Commercial Banking earnings were up mainly due to volume growth and higher spreads. These factors were partially offset by higher staff and technology related costs, higher provision for credit losses (PCL) and a gain relating to the reorganization of Interac in the prior year. The current year also included a write-down of deferred tax assets resulting from a change in the corporate tax rate in Barbados.

Insurance results increased primarily reflecting favourable life retrocession contract renegotiations and lower claims costs.

Wealth Management results remained unchanged from a year ago as higher net interest income and an increase in average fee-based client assets were offset by higher costs related to business growth, increases in PCL and regulatory costs, and lower transaction volumes. A favourable accounting adjustment related to Canadian Wealth Management in the current period was largely offset by the impact of a favourable accounting adjustment related to City National in the prior period.

Capital Markets results were down primarily due to higher PCL and lower revenue in Corporate and Investment Banking. These factors were partially offset by a lower effective tax rate reflecting changes in earnings mix and the impact of foreign exchange translation.

Investor & Treasury Services earnings decreased primarily due to lower funding and liquidity revenue, higher costs in support of business growth, and lower revenue from our asset services business. These factors were partially offset by improved client deposit margins.

Corporate Support net income was $24 million in the current quarter, largely reflecting net favourable tax adjustments. Net loss was $200 million in the prior year, largely due to the impact of the U.S. Tax Reform of $178 million which was mainly related to the write-down of net deferred tax assets.

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

Q1 2019 vs. Q4 2018

Net income of $3,172 million was down $78 million or 2% from the prior quarter. Diluted EPS of $ 2.15 was down $0.05 or 2% and ROE of 16.7% was down 90 bps. Our CET1 ratio of 11.4%, was down 10 bps.

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

Insurance earnings were down as the prior period included annual actuarial assumption updates, higher favourable investment-related experience, and higher favourable life retrocession contract renegotiations.

Capital Markets earnings decreased primarily due to lower revenue in Corporate and Investment Banking and higher PCL. These factors were partially offset by higher revenue in Global Markets and a lower effective tax rate reflecting changes in earnings mix.

Wealth Management earnings were up primarily reflecting an increase in net interest income, a favourable accounting adjustment related to Canadian Wealth Management in the current period, and the change in fair value of seed capital investments. These factors were partially offset by higher costs in support of business growth, and lower fee-based revenue resulting from challenging market conditions throughout the earlier part of Q1 2019.

Personal & Commercial Banking results were up reflecting volume growth, seasonally lower marketing costs, and lower professional fees. These factors were partially offset by higher staff-related costs and an increase in PCL. The current year also included a write-down of deferred tax assets resulting from a change in the corporate tax rate in Barbados.

Investor & Treasury Services earnings increased primarily due to higher funding and liquidity revenue, lower technology costs, and improved client deposit margins. These factors were partially offset by annual regulatory costs in the current period.

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	
(Millions of Canadian dollars, except per share amounts)	Q1 2019 vs. Q1 2018	Q1 2019 vs. Q4 2018
Increase (decrease):		
Total revenue	$ 186	$ 86
PCL	8	3
PBCAE	–	–
Non-interest expense	115	57
Income taxes	7	3
Net income	56	23
Impact on EPS		
Basic	$ 0.04	$ 0.02
Diluted	0.04	0.02

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

	For the three months ended		
(Average foreign currency equivalent of C$1.00) (1)	January 31 2019	October 31 2018	January 31 2018
U.S. dollar	0.749	0.767	0.794
British pound	0.582	0.593	0.578
Euro	0.656	0.666	0.656

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

Total revenue

	For the three months ended		
(Millions of Canadian dollars)	January 31 2019	October 31 2018	January 31 2018
Interest and dividend income	$ 10,149	$ 8,990	$ 7,540
Interest expense	5,265	4,261	3,095
Net interest income	$ 4,884	$ 4,729	$ 4,445
NIM	1.62%	1.67%	1.65%
Insurance premiums, investment and fee income	$ 1,579	$ 1,039	$ 1,144
Trading revenue	358	123	318
Investment management and custodial fees	1,450	1,387	1,325
Mutual fund revenue	873	896	885
Securities brokerage commissions	342	349	355
Service charges	468	459	440
Underwriting and other advisory fees	345	514	541
Foreign exchange revenue, other than trading	249	267	281
Card service revenue	282	264	257
Credit fees	315	371	328
Net gains on investment securities	46	33	39
Share of profit in joint ventures and associates	15	8	25
Other	383	230	445
Non-interest income	$ 6,705	$ 5,940	$ 6,383
Total revenue	$ 11,589	$ 10,669	$ 10,828
Additional information			
Total trading revenue			
Net interest income	$ 601	$ 548	$ 550
Non-interest income	358	123	318
Total trading revenue	$ 959	$ 671	$ 868

Q1 2019 vs. Q1 2018

Total revenue increased $761 million or 7% from last year, mainly due to higher net interest income, insurance premiums, investment and fee income (Insurance revenue), and investment management and custodial fees. These factors were partially offset by lower underwriting and advisory fees. In addition, the impact of foreign exchange translation increased total revenue by $186 million.

Net interest income increased $439 million or 10%, largely due to the impact from higher interest rates and volume growth in Canadian Banking and Wealth Management. Higher trading revenue, primarily in commodities and equities, and higher lending revenue in Capital Markets also contributed to the increase. Net interest income was also impacted by lower funding and liquidity revenue, which was largely offset by the related gains on non-trading derivatives in Other revenue.

NIM was down 3 bps compared to last year, due to changes in average earning asset mix with volume growth primarily in reverse repos, and lower funding and liquidity revenue. These factors were partially offset by improved spreads on deposits in Canadian Banking and Wealth Management, reflecting higher interest rates. The impact associated with lower funding and liquidity revenue was largely offset by the related gains on non-trading derivatives in Other revenue.

Insurance revenue increased $435 million or 38%, mainly reflecting the change in fair value of investments backing our policyholder liabilities and higher group annuity sales, both of which are largely offset in PBCAE. Business growth in longevity reinsurance, and favourable life retrocession contract renegotiations also contributed to the increase.

Investment management and custodial fees increased $125 million or 9%, mainly due to a favourable accounting adjustment in Wealth Management in the current period and higher average fee-based client assets reflecting net sales.

Underwriting and other advisory fees decreased $196 million or 36%, largely due to lower equity and debt origination primarily in North America.

Q1 2019 vs. Q4 2018

Total revenue increased $920 million or 9% from the prior quarter, primarily due to the change in fair value of investments backing our policyholder liabilities, which is largely offset in PBCAE, higher equity and fixed income trading revenue, primarily in North America, and the impact from volume growth and higher interest rates in Canadian Banking and Wealth Management. These factors were partially offset by lower equity and debt origination, primarily in North America. In addition, the impact of foreign exchange translation increased total revenue by $86 million.

Provision for credit losses

Q1 2019 vs. Q1 2018

Total PCL in Q1 2019 was $514 million.

PCL on loans of $516 million increased $182 million, or 54% from the prior year, mainly due to higher provisions in Capital Markets, Personal & Commercial Banking and Wealth Management. PCL ratio on loans of 34 bps increased 10 bps.

Q1 2019 vs. Q4 2018
Total PCL increased $161 million from the prior quarter.

PCL on loans of $516 million increased $183 million, or 55% from the prior quarter, mainly due to higher provisions in Capital Markets and Personal & Commercial Banking. PCL ratio on loans increased 11 bps.

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

Insurance policyholder benefits, claims and acquisition expense (PBCAE)

Q1 2019 vs. Q1 2018
PBCAE increased $389 million or 47% from a year ago, primarily due to the change in fair value of investments backing our policyholder liabilities and higher group annuity sales, both of which are largely offset in revenue, and growth in longevity reinsurance. These factors were partially offset by favourable life retrocession contract renegotiations, and lower claims costs mainly due to lower claims volumes in our life retrocession and international life portfolios.

Q1 2019 vs. Q4 2018
PBCAE increased $731 million from the prior quarter, mainly due to the change in fair value of investments backing our policyholder liabilities, which is largely offset in revenue, business growth, and lower favourable investment-related experience. The prior quarter included favourable annual actuarial assumption updates and higher favourable life retrocession contract renegotiations. These factors were partially offset by lower group annuity sales, which is largely offset in revenue.

Non-interest expense

	For the three months ended		
(Millions of Canadian dollars, except percentage amounts)	January 31 2019	October 31 2018	January 31 2018
Salaries	$ 1,608	$ 1,575	$ 1,466
Variable compensation	1,388	1,433	1,384
Benefits and retention compensation	492	402	480
Share-based compensation	155	19	172
Human resources	$ 3,643	$ 3,429	$ 3,502
Equipment	431	419	372
Occupancy	397	400	379
Communications	240	316	224
Professional fees	305	418	281
Amortization of other intangibles	290	279	261
Other	606	621	592
Non-interest expense	$ 5,912	$ 5,882	$ 5,611
Efficiency ratio (1)	51.0%	55.1%	51.8%
Efficiency ratio adjusted (2)	52.1%	53.4%	51.9%

(1) Efficiency ratio is calculated as Non-interest expense divided by Total revenue.
(2) Measures have been adjusted by excluding the change in fair value of investments backing our policyholder liabilities. These are non-GAAP measures. For further details, refer to the Key performance and non-GAAP measures section.

Q1 2019 vs. Q1 2018
Non-interest expense increased $301 million or 5%, largely due to the impact of foreign exchange translation, increased costs in support of business growth and higher staff-related costs. Increased technology and related costs, including digital initiatives, and higher regulatory costs also contributed to the increase. These factors were partially offset by the change in the fair value of our U.S. share-based compensation plans, which was largely offset in Other revenue.

Our efficiency ratio of 51.0% decreased 80 bps from 51.8% last year. Excluding the change in fair value of investments backing our policyholder liabilities, our efficiency ratio of 52.1% increased 20 bps from 51.9% last year, primarily due to increased costs in support of business growth and higher staff-related costs, increased technology and related costs, including digital initiatives, and higher regulatory costs. These factors were largely offset by revenue growth across most business segments.

Q1 2019 vs. Q4 2018
Non-interest expense increased $30 million or 1%, largely due to increased costs in support of business growth and higher staff-related costs, and the impact of foreign exchange translation. These factors were largely offset by seasonally lower marketing costs and lower professional fees.

Our efficiency ratio of 51.0% decreased 410 bps from 55.1% last quarter. Excluding the change in fair value of investments backing our policyholder liabilities, our efficiency ratio of 52.1% decreased 130 bps from 53.4% last quarter, primarily due to higher revenue across all business segments, seasonally lower marketing costs and lower professional fees. These factors were partially offset by increased costs in support of business growth and higher staff-related costs.

Efficiency ratio excluding the change in fair value of investments backing our 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 January 31 2019	October 31 2018	January 31 2018
Income taxes	**$ 766**	$ 690	$ 1,035
Income before income taxes	**$ 3,938**	$ 3,940	$ 4,047
Canadian statutory income tax rate (1)	**26.5%**	26.5%	26.5%
Lower average tax rate applicable to subsidiaries (2)	**(5.1)%**	(6.3)%	(3.2)%
Tax-exempt income from securities	**(1.8)%**	(1.9)%	(1.6)%
Tax rate change (3)	**0.5%**	–%	3.6%
Other	**(0.6)%**	(0.8)%	0.3%
Effective income tax rate	**19.5%**	17.5%	25.6%

(1) Blended Federal and Provincial statutory income tax rate.
(2) As the reduced tax rates from the U.S. Tax Reform were effective on January 1, 2018, the Lower average tax rate applicable to subsidiaries for the three months ended October 31, 2018 and January 31, 2018 reflects the fiscal 2018 blended rate for U.S. subsidiaries.
(3) In Q1 2018, the tax rate change is primarily related to the impact of the U.S. Tax Reform.

Q1 2019 vs. Q1 2018

Income tax expense decreased $269 million or 26% from last year, primarily due to the impact of the U.S. Tax Reform which resulted in the write-down of net deferred tax assets in the prior year, and changes in earnings mix. These factors were partially offset by a write-down of deferred tax assets resulting from a change in the corporate tax rate in Barbados in the current period.

The effective income tax rate of 19.5% decreased 610 bps, mainly due to impact of the U.S. Tax Reform in the prior year, higher income from lower tax rate jurisdictions, and net favourable tax adjustments in the current quarter. These factors were partially offset by a write-down of deferred tax assets resulting from a change in the corporate tax rate in Barbados in the current period.

Q1 2019 vs. Q4 2018

Income tax expense increased $76 million or 11% from last quarter, and the effective income tax rate of 19.5% increased 200 bps, primarily due to lower net favourable tax adjustments and a write-down of deferred tax assets resulting from a change in the corporate tax rate in Barbados in the current period.

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, 2018.

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 2018 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 2018 Annual Report.

The following table provides a summary of our ROE calculations:

	For the three months ended								
	January 31 2019							October 31 2018	January 31 2018
(Millions of Canadian dollars, except percentage amounts)	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets	Corporate Support	Total	Total	Total
Net income available to common shareholders	$ 1,546	$ 583	$ 164	$ 157	$ 630	$ 16	$ 3,096	$ 3,176	$ 2,929
Total average common equity (1) (2)	23,050	14,050	1,900	3,600	23,150	7,800	73,550	71,700	66,850
ROE (3)	26.6%	16.4%	34.7%	17.3%	10.8%	n.m.	16.7%	17.6%	17.4%

(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 months ended January 31, 2019 with the corresponding period in the prior year and the three months ended October 31, 2018, as well as, in the case of economic profit, measure relative contribution to shareholder value. 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.

Economic profit

Economic profit is net income excluding the after-tax effect of amortization of other intangibles less a capital charge for use of attributed capital. It measures the return generated by our businesses in excess of our cost of shareholders' equity, thus enabling users to identify relative contributions to shareholder value.

The capital charge includes a charge for common equity and preferred shares. For 2019, our cost of common equity remains unchanged at 8.5%.

The following table provides a summary of our Economic profit:

	For the three months ended								
	January 31 2019							October 31 2018	January 31 2018
(Millions of Canadian dollars)	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets	Corporate Support	Total	Total	Total
Net income	$ 1,571	$ 597	$ 166	$ 161	$ 653	$ 24	$ 3,172	$ 3,250	$ 3,012
add: Non-controlling interests	(2)	–	–	–	–	–	(2)	(3)	(11)
After-tax effect of amortization of other intangibles	3	49	–	2	–	–	54	55	54
Adjusted net income (loss)	$ 1,572	$ 646	$ 166	$ 163	$ 653	$ 24	$ 3,224	$ 3,302	$ 3,055
less: Capital charge	516	315	42	81	519	176	1,649	1,607	1,505
Economic profit (loss)	$ 1,056	$ 331	$ 124	$ 82	$ 134	$ (152)	$ 1,575	$ 1,695	$ 1,550

Results excluding specified item

- For the three months ended January 31, 2017, our share of a gain related to the sale by our payment processing joint venture Moneris of its U.S. operations to Vantiv, Inc., which was $212 million (before- and after-tax) and recorded in Canadian Banking.

There were no specified items for the three months ended January 31, 2019, October 31, 2018 and January 31, 2018.

The following table provides calculations of our Canadian Banking results and measures excluding the specified item for the three months ended January 31, 2017 for the purpose of calculating adjusted operating leverage which is a non-GAAP measure:

Canadian Banking

	For the three months ended		
	January 31 2017		
		Item excluded	
(Millions of Canadian dollars, except percentage amounts)	As reported	Gain related to the sale by Moneris (1)	Adjusted
Total revenue	$ 3,824	$ (212)	$ 3,612
PCL	250	–	250
Non-interest expense	1,560	–	1,560
Net income before income taxes	$ 2,014	$ (212)	$ 1,802
Net income	$ 1,546	$ (212)	$ 1,334
Other information			
Non-interest expense	$ 1,560	$ –	$ 1,560
Total revenue	3,824	(212)	3,612
Efficiency ratio	40.8%		43.2%
Revenue growth rate	10.4%		4.3%
Non-interest expense growth rate	1.5%		1.5%
Operating leverage	8.9%		2.8%

(1) Includes foreign currency translation.

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 our 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 our policyholder liabilities:

(Millions of Canadian dollars, except percentage amounts)	January 31 2019 As reported	January 31 2019 Item excluded: Change in fair value of investments backing policyholder liabilities	January 31 2019 Adjusted	October 31 2018 As reported	October 31 2018 Item excluded: Change in fair value of investments backing policyholder liabilities	October 31 2018 Adjusted	January 31 2018 As reported	January 31 2018 Item excluded: Change in fair value of investments backing policyholder liabilities	January 31 2018 Adjusted
Total revenue	$ 11,589	$ (247)	$ 11,342	$ 10,669	$ 342	$ 11,011	$ 10,828	$ (26)	$ 10,802
Non-interest expense	5,912	–	5,912	5,882	–	5,882	5,611	–	5,611
Efficiency ratio	51.0%		52.1%	55.1%		53.4%	51.8%		51.9%

For the three months ended

Personal & Commercial Banking

(Millions of Canadian dollars, except percentage amounts and as otherwise noted)	January 31 2019	October 31 2018	January 31 2018
Net interest income	$ 3,134	$ 3,067	$ 2,856
Non-interest income	1,284	1,297	1,309
Total revenue	4,418	4,364	4,165
PCL on performing assets	35	25	41
PCL on impaired assets	313	292	276
PCL	348	317	317
Non-interest expense	1,915	1,987	1,801
Income before income taxes	2,155	2,060	2,047
Net income	$ 1,571	$ 1,538	$ 1,521
Revenue by business			
Canadian Banking	$ 4,170	$ 4,132	$ 3,927
Caribbean & U.S. Banking	248	232	238
Selected balance sheet and other information			
ROE	26.6%	26.7%	28.6%
NIM	2.84%	2.82%	2.73%
Efficiency ratio	43.3%	45.5%	43.2%
Operating leverage	(0.2)%	2.5%	0.4%
Effective income tax rate	27.1%	25.3%	25.7%
Average total earning assets, net	$ 437,100	$ 431,500	$ 415,600
Average loans and acceptances, net	438,100	432,200	416,000
Average deposits	382,200	368,700	357,000
AUA (1)	268,500	266,500	270,800
Average AUA	264,000	274,900	268,500
PCL on impaired loans as a % of average net loans and acceptances	0.28%	0.25%	0.26%
Other selected information – Canadian Banking			
Net income	$ 1,544	$ 1,463	$ 1,480
NIM	2.79%	2.77%	2.68%
Efficiency ratio	41.6%	43.8%	41.5%
Operating leverage	(0.2)%	2.3%	(1.7)%
Operating leverage adjusted (2)	n.a.	n.a.	4.3%
Effective income tax rate	26.3%	25.8%	25.9%

As at or for the three months ended

(1) AUA represents period-end spot balances and includes securitized residential mortgages and credit card loans as at January 31, 2019 of $16.6 billion and $8.5 billion, respectively (October 31, 2018 – $16.7 billion and $9.6 billion; January 31, 2018 – $18.2 billion and $9.1 billion).
(2) This is a non-GAAP measure. Q1 2018 operating leverage of (1.7)% in Canadian Banking was impacted by our share of the gain related to the sale of the U.S. operations of Moneris of $212 million (before- and after-tax) in Q1 2017, which was a specified item. For further details, including a reconciliation, refer to the Key performance and non-GAAP measures section. Q1 2018 revenue and expense growth rates in Canadian Banking were 2.7% and 4.4%, respectively. Excluding our share of the gain as noted above, Q1 2018 adjusted revenue growth rate was 8.7%.
n.a. not applicable

Financial performance
Q1 2019 vs. Q1 2018

Net income increased $50 million or 3% from last year, mainly due to volume growth and higher spreads. These factors were partially offset by higher staff and technology related costs, higher PCL and a gain relating to the reorganization of Interac in the prior year. The current year also included a write-down of deferred tax assets resulting from a change in the corporate tax rate in Barbados.

Total revenue increased $253 million or 6%.

Canadian Banking revenue increased $243 million or 6% compared to last year, largely reflecting average volume growth of 5% in loans and 7% in deposits and improved spreads. These factors were partially offset by a gain relating to the reorganization of Interac in the prior year.

Caribbean & U.S. Banking revenue increased $10 million or 4% compared to last year, due to the impact of foreign exchange translation.

Net interest margin was up 11 bps, mainly due to improved spreads on deposits in Canadian Banking, reflecting higher interest rates, partially offset by the impact of competitive pricing pressures.

PCL increased $31 million or 10%, driving an increase of 2 bps on the PCL on impaired loans ratio. For further details, refer to Credit quality performance in the Credit risk section.

Non-interest expense increased $114 million or 6%, primarily attributable to higher staff-related costs, an increase in technology and related costs, including digital initiatives, and higher marketing costs.

Q1 2019 vs. Q4 2018

Net income increased $33 million or 2% from last quarter, reflecting volume growth, lower marketing costs, and lower professional fees. These factors were partially offset by higher staff-related costs and an increase in PCL. The current year also included a write-down of deferred tax assets resulting from a change in the corporate tax rate in Barbados.

Total revenue increased $54 million or 1% from last quarter, mainly driven by average volume growth of 1% in loans and 4% in deposits in Canadian Banking and higher purchase volumes resulting in higher card service revenue. These factors were partially offset by lower average balances driving lower mutual fund distribution fees.

Net interest margin was up 2 bps largely due to improved spreads on deposits in Canadian Banking, partially offset by the impact of competitive pricing pressures.

PCL increased $31 million or 10%, mainly due to higher PCL on impaired loans, partially offset by provisions taken in the prior quarter on the restructuring of Barbados securities. PCL on impaired loans ratio increased 3 bps. For further details, refer to Credit quality performance in the Credit risk section.

Non-interest expense decreased $72 million or 4%, largely reflecting seasonally lower marketing costs, and lower professional fees. These factors were partially offset by higher staff-related costs.

Wealth Management

(Millions of Canadian dollars, except number of and percentage amounts and as otherwise noted)	As at or for the three months ended January 31 2019	October 31 2018	January 31 2018
Net interest income	$ 744	$ 679	$ 612
Non-interest income			
Fee-based revenue	1,714	1,662	1,589
Transaction and other revenue	490	399	582
Total revenue	2,948	2,740	2,783
PCL on performing assets	15	(3)	(7)
PCL on impaired assets	11	7	5
PCL	26	4	(2)
Non-interest expense	2,164	2,061	2,011
Income before income taxes	758	675	774
Net income	$ 597	$ 553	$ 597
Revenue by business			
Canadian Wealth Management	$ 842	$ 796	$ 749
U.S. Wealth Management (including City National)	1,471	1,345	1,384
U.S. Wealth Management (including City National) (US$ millions)	1,103	1,031	1,100
Global Asset Management	543	513	556
International Wealth Management	92	86	94
Selected balance sheet and other information			
ROE	16.4%	15.9%	17.3%
NIM	3.67%	3.49%	3.27%
Pre-tax margin (1)	25.7%	24.6%	27.8%
Number of advisors (2)	5,119	5,042	4,901
Average total earning assets, net	$ 80,500	$ 77,100	$ 74,300
Average loans and acceptances, net	61,200	57,800	52,500
Average deposits	94,300	91,800	92,600
AUA (3)	981,400	970,500	938,800
U.S. Wealth Management (including City National) (3)	496,500	483,000	453,000
U.S. Wealth Management (including City National) (US$ millions) (3)	378,000	367,100	368,100
AUM (3)	682,000	664,900	651,000
Average AUA	986,800	988,900	938,600
Average AUM (4)	675,100	679,900	648,400
PCL on impaired loans as a % of average net loans and acceptances	0.07%	0.04%	0.04%

Estimated impact of U.S. dollar, British pound and Euro translation on key income statement items (Millions of Canadian dollars, except percentage amounts and as otherwise noted)	For the three months ended Q1 2019 vs. Q1 2018	Q1 2019 vs. Q4 2018
Increase (decrease):		
Total revenue	$ 83	$ 36
PCL	2	1
Non-interest expense	64	28
Net income	14	6
Percentage change in average U.S. dollar equivalent of C$1.00	(6)%	(2)%
Percentage change in average British pound equivalent of C$1.00	1%	(2)%
Percentage change in average Euro equivalent of C$1.00	–%	(1)%

(1) Pre-tax margin is defined as Income before income taxes divided by Total revenue.
(2) Represents client-facing advisors across all our Wealth Management businesses.
(3) Represents period-end spot balances.
(4) Amounts have been revised from those previously presented.

Financial performance
Q1 2019 vs. Q1 2018

Net income remained unchanged from a year ago as higher net interest income and an increase in average fee-based client assets were offset by higher costs related to business growth, increases in PCL and regulatory costs, and lower transaction volumes. A favourable accounting adjustment related to Canadian Wealth Management in the current period was largely offset by the impact of a favourable accounting adjustment related to City National in the prior period.

Total revenue increased $165 million or 6%.

Canadian Wealth Management revenue increased $93 million or 12%, primarily due to a favourable accounting adjustment, higher average fee-based client assets reflecting net sales despite challenging market conditions, and an increase in net interest income attributable to higher interest rates. These factors were partially offset by lower transaction volumes.

U.S. Wealth Management (including City National) revenue increased $87 million or 6%. In U.S. dollars, revenue remained relatively unchanged from the prior year. An increase in net interest income due to volume growth and higher interest rates, and higher average fee-based client assets reflecting net sales despite challenging market conditions, were offset by the change in the fair value of the hedges related to our U.S. share-based compensation plans, which was largely offset in non-interest expense, a favourable accounting adjustment related to City National in the prior period, and lower transaction volumes.

Global Asset Management revenue decreased $13 million or 2%, reflecting challenging market conditions in the current quarter that resulted in lower performance fees.

PCL increased $28 million, largely reflecting an increase in PCL on performing assets in U.S. Wealth Management (including City National), primarily driven by unfavourable changes in certain near-term macroeconomic variables. PCL on impaired loans ratio increased 3 bps. For further details, refer to Credit quality performance in the Credit risk section.

Non-interest expense increased $153 million or 8%, mainly due to the impact of foreign exchange translation, and increased costs in support of business growth largely reflecting higher staff-related costs. Higher variable compensation, including the impact of the accounting adjustment in Canadian Wealth Management, and higher regulatory costs also contributed to the increase. These factors were partially offset by the change in the fair value of our U.S. share-based compensation plans, which was largely offset in revenue.

Q1 2019 vs. Q4 2018

Net income increased $44 million or 8%, primarily reflecting an increase in net interest income, a favourable accounting adjustment related to Canadian Wealth Management in the current period, and the change in fair value of seed capital investments. These factors were partially offset by higher costs in support of business growth, and lower fee-based revenue resulting from challenging market conditions throughout the earlier part of Q1 2019.

Total revenue increased $208 million or 8%, mainly due to the impact of a favourable accounting adjustment related to Canadian Wealth Management, the change 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 higher net interest income due to volume growth and higher interest rates. The impact of foreign exchange translation and the change in fair value of seed capital investments also contributed to the increase. These factors were partially offset by lower fee-based revenue resulting from challenging market conditions throughout the earlier part of Q1 2019.

PCL increased $22 million, primarily reflecting higher PCL on performing assets in U.S. Wealth Management (including City National), driven by unfavourable changes in certain near-term macroeconomic variables. PCL on impaired loans ratio increased 3 bps. For further details, refer to Credit quality performance in the Credit risk section.

Non-interest expense increased $103 million or 5%, primarily reflecting increased costs in support of business growth mainly due to higher staff-related costs, the change in the fair value of our U.S. share-based compensation plans, which was largely offset in revenue, and the impact of foreign exchange translation. Higher variable compensation due to an accounting adjustment in Canadian Wealth Management also contributed to the increase.

Insurance

(Millions of Canadian dollars, except percentage amounts and as otherwise noted)	As at or for the three months ended January 31 2019	October 31 2018	January 31 2018
Non-interest income			
Net earned premiums	$ 1,162	$ 1,222	$ 939
Investment income (1)	381	(230)	166
Fee income	36	47	39
Total revenue	1,579	1,039	1,144
Insurance policyholder benefits and claims (1)	1,129	416	768
Insurance policyholder acquisition expense	96	78	68
Non-interest expense	154	159	142
Income before income taxes	200	386	166
Net income	$ 166	$ 318	$ 127
Revenue by business			
Canadian Insurance	$ 1,039	$ 536	$ 621
International Insurance	540	503	523
Selected balances and other information			
ROE	34.7%	57.2%	28.2%
Premiums and deposits (2)	$ 1,314	$ 1,374	$ 1,095
Fair value changes on investments backing policyholder liabilities (1)	247	(342)	26

(1) Investment income can experience volatility arising from fluctuation of assets designated as fair value through profit and loss (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 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.

(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

Q1 2019 vs. Q1 2018

Net income increased $39 million or 31% from a year ago, primarily reflecting favourable life retrocession contract renegotiations and lower claims costs.

Total revenue increased $435 million or 38%.

Canadian Insurance revenue increased $418 million or 67%, mainly due to the change in fair value of investments backing our policyholder liabilities and higher group annuity sales, both of which are largely offset in PBCAE, as indicated below.

International Insurance revenue increased $17 million or 3%, mainly due to business growth in longevity reinsurance, and favourable life retrocession contract renegotiations. These factors were partially offset by the change in fair value of investments backing our policyholder liabilities, which is largely offset in PBCAE, as indicated below.

PBCAE increased $389 million or 47%, primarily due to the change in fair value of investments backing our policyholder liabilities, and business growth. These factors were partially offset by favourable life retrocession contract renegotiations, and lower claims costs mainly due to lower claims volumes in our life retrocession and international life portfolios.

Non-interest expense increased $12 million or 8%, largely reflecting higher regulatory costs and an increase in costs to support sales and client service activities.

Q1 2019 vs. Q4 2018

Net income decreased $152 million or 48%, as the prior period included annual actuarial assumption updates, higher favourable investment-related experience, and higher favourable life retrocession contract renegotiations.

Total revenue increased $540 million or 52%, mainly reflecting the change in fair value of investments backing our policyholder liabilities, which is largely offset in PBCAE, as indicated below, and business growth in both Canadian and International Insurance. These factors were partially offset by lower group annuity sales, which is largely offset in PBCAE, as indicated below.

PBCAE increased $731 million, mainly due to the change in fair value of investments backing our policyholder liabilities, business growth, and lower favourable investment-related experience. The prior quarter included favourable annual actuarial assumption updates and higher favourable life retrocession contract renegotiations. These factors were partially offset by lower group annuity sales.

Non-interest expense decreased $5 million or 3%, mainly reflecting lower staff and marketing-related costs.

Investor & Treasury Services

(Millions of Canadian dollars, except percentage amounts and as otherwise noted)	As at or for the three months ended January 31 2019	October 31 2018	January 31 2018
Net interest income	$ (31)	$ 19	$ 128
Non-interest income	662	605	548
Total revenue	631	624	676
Non-interest expense	418	421	389
Net income before income taxes	213	203	287
Net income	$ 161	$ 155	$ 219
Selected balance sheet and other information			
ROE	17.3%	19.2%	26.9%
Average deposits	$ 171,900	$ 163,600	$ 155,300
Average client deposits	59,200	59,200	56,900
Average wholesale funding deposits	112,700	104,400	98,400
AUA (1)	4,100,900	4,283,100	4,431,800
Average AUA	4,191,300	4,295,200	4,439,300

(1) Represents period-end spot balances.

Q1 2019 vs. Q1 2018

Net income decreased $58 million or 26%, primarily due to lower funding and liquidity revenue, higher costs in support of business growth, and lower revenue from our asset services business. These factors were partially offset by improved client deposit margins.

Total revenue decreased $45 million or 7%, mainly due to lower funding and liquidity revenue driven by gains from the disposition of certain securities in the prior year and the impact of reduced money market opportunities in the current year. Lower revenue from our asset services business due to challenging market conditions and lower client activity also contributed to the decrease. These factors were partially offset by improved client deposit margins.

Non-interest expense increased $29 million or 7%, largely driven by higher costs in support of business growth mainly reflecting staff-related costs and increased investment in technology initiatives, as well as higher regulatory costs.

Q1 2019 vs. Q4 2018

Net income increased $6 million or 4%, primarily due to higher funding and liquidity revenue, lower technology costs, and improved client deposit margins. These factors were partially offset by annual regulatory costs.

Total revenue increased $7 million or 1%, mainly due to higher funding and liquidity revenue driven by capitalizing on money market opportunities in the quarter and improved client deposit margins. These factors were partially offset by gains from the disposition of certain securities in the prior quarter.

Non-interest expense decreased $3 million or 1%, largely driven by lower technology costs and decreased staff-related costs, partially offset by annual regulatory costs in the current period.

Capital Markets

(Millions of Canadian dollars, except percentage amounts and as otherwise noted)	As at or for the three months ended January 31 2019	October 31 2018	January 31 2018
Net interest income (1)	$ 1,006	$ 947	$ 866
Non-interest income (1)	1,092	1,109	1,309
Total revenue (1)	2,098	2,056	2,175
PCL on performing assets	38	17	(25)
PCL on impaired assets	102	15	45
PCL	140	32	20
Non-interest expense	1,230	1,244	1,214
Net income before income taxes	728	780	941
Net income	$ 653	$ 666	$ 748
Revenue by business			
Corporate and Investment Banking	$ 927	$ 1,087	$ 994
Global Markets	1,227	1,035	1,221
Other	(56)	(66)	(40)
Selected balance sheet and other information			
ROE	10.8%	11.8%	14.7%
Average total assets	$ 643,700	$ 591,700	$ 570,200
Average trading securities	102,100	88,000	100,800
Average loans and acceptances, net	98,400	90,700	81,400
Average deposits	79,000	74,600	64,900
PCL on impaired loans as a % of average net loans and acceptances	0.41%	0.07%	0.22%

Estimated impact of U.S. dollar, British pound and Euro translation on key income statement items (Millions of Canadian dollars, except percentage amounts and as otherwise noted)	For the three months ended Q1 2019 vs. Q1 2018	Q1 2019 vs. Q4 2018
Increase (decrease):		
Total revenue	$ 80	$ 36
Non-interest expense	38	20
Net income	30	13
Percentage change in average U.S. dollar equivalent of C$1.00	(6)%	(2)%
Percentage change in average British pound equivalent of C$1.00	1%	(2)%
Percentage change in average Euro equivalent of C$1.00	–%	(1)%

(1) The taxable equivalent basis (teb) adjustment for the three months ended January 31, 2019 was $107 million (October 31, 2018 – $142 million; January 31, 2018 – $92 million). For further discussion, refer to the How we measure and report our business segments section of our 2018 Annual Report.

Q1 2019 vs. Q1 2018

Net income decreased $95 million or 13%, primarily due to higher PCL and lower revenue in Corporate and Investment Banking. These factors were partially offset by a lower effective tax rate reflecting changes in earnings mix and the impact of foreign exchange translation.

Total revenue decreased $77 million or 4%.

Corporate and Investment Banking revenue decreased $67 million or 7%, mainly driven by lower equity and debt origination primarily in North America due to challenging market conditions and lower issuance activity. These factors were partially offset by the impact of foreign exchange translation and higher lending revenue.

Global Markets revenue remained relatively flat. Higher equity trading revenue largely in the U.S. and the impact of foreign exchange translation were largely offset by lower fixed income trading revenue across all regions and lower equity and debt origination, primarily in North America, due to challenging market conditions throughout the earlier part of Q1 2019 driving lower client activity.

Other revenue decreased $16 million largely reflecting gains in our legacy U.S. portfolios in the prior year.

PCL increased $120 million, mainly due to higher PCL on performing assets, primarily driven by unfavourable changes in certain near-term macroeconomic variables. Higher PCL on impaired loans also contributed to the increase with the PCL on impaired loans ratio increasing 19 bps, primarily due to a provision taken on one account in the utilities sector. For further details, refer to Credit quality performance in the Credit risk section.

Non-interest expense increased $16 million or 1%, mainly due to the impact of foreign exchange translation and increased technology and related costs. These factors were partially offset by lower compensation on decreased results.

Q1 2019 vs. Q4 2018

Net income decreased $13 million or 2%, primarily due to lower revenue in Corporate and Investment Banking and higher PCL. These factors were partially offset by higher revenue in Global Markets and a lower effective tax rate reflecting changes in earnings mix.

Total revenue increased $42 million or 2%, mainly due to higher equity, fixed income and foreign exchange trading revenue. The impact of foreign exchange translation also contributed to the increase. These factors were partially offset by lower debt and equity origination, primarily in North America due to challenging market conditions throughout the earlier part of Q1 2019, decreased loan syndication activity primarily in North America and lower municipal banking activity.

PCL increased $108 million, primarily due to higher PCL on impaired loans. PCL on impaired loans ratio increased 34 bps, primarily due to a provision taken on one account in the utilities sector. For further details, refer to Credit quality performance in the Credit risk section.

Non-interest expense decreased $14 million or 1%, mainly due to lower compensation and decreased regulatory and technology costs, partially offset by the impact of foreign exchange translation.

Corporate Support

	For the three months ended		
(Millions of Canadian dollars)	January 31 2019	October 31 2018	January 31 2018
Net interest income (loss) (1)	$ 31	$ 17	$ (17)
Non-interest income (loss) (1)	(116)	(171)	(98)
Total revenue (1)	(85)	(154)	(115)
PCL	–	–	(1)
Non-interest expense	31	10	54
Net income (loss) before income taxes (1)	(116)	(164)	(168)
Income taxes (recoveries) (1)	(140)	(184)	32
Net income (loss) (2)	$ 24	$ 20	$ (200)

(1) Teb adjusted.
(2) Net income reflects income attributable to both shareholders and Non-Controlling Interests (NCI). Net income attributable to NCI for the three months ended January 31, 2019 was $nil (October 31, 2018 – $(1) million; January 31, 2018 – $9 million).

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 January 31, 2019 was $107 million, as compared to $142 million in the prior quarter and $92 million last year.

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

Q1 2019
Net income was $24 million, largely reflecting net favourable tax adjustments.

Q4 2018
Net income was $20 million, largely reflecting net favourable tax adjustments.

Q1 2018
Net loss was $200 million, largely due to the impact of the U.S. Tax Reform of $178 million which was primarily related to the write-down of net deferred tax assets.

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)

	2019	2018				2017		
(Millions of Canadian dollars, except per share and percentage amounts)	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2
Personal & Commercial Banking	$ 4,418	$ 4,364	$ 4,284	$ 4,103	$ 4,165	$ 4,019	$ 3,970	$ 3,798
Wealth Management	2,948	2,740	2,798	2,605	2,783	2,562	2,547	2,481
Insurance	1,579	1,039	1,290	806	1,144	1,612	1,009	1,448
Investor & Treasury Services	631	624	620	671	676	602	594	608
Capital Markets (2)	2,098	2,056	2,157	2,010	2,175	1,954	2,040	2,117
Corporate Support (2)	(85)	(154)	(124)	(141)	(115)	(226)	(72)	(40)
Total revenue	$ 11,589	$ 10,669	$ 11,025	$ 10,054	$ 10,828	$ 10,523	$ 10,088	$ 10,412
PCL (3)	514	353	346	274	334	234	320	302
PBCAE	1,225	494	925	421	836	1,137	643	1,090
Non-interest expense	5,912	5,882	5,858	5,482	5,611	5,611	5,537	5,331
Net income before income taxes	$ 3,938	$ 3,940	$ 3,896	$ 3,877	$ 4,047	$ 3,541	$ 3,588	$ 3,689
Income taxes	766	690	787	817	1,035	704	792	880
Net income	$ 3,172	$ 3,250	$ 3,109	$ 3,060	$ 3,012	$ 2,837	$ 2,796	$ 2,809
EPS – basic	$ 2.15	$ 2.21	$ 2.10	$ 2.06	$ 2.02	$ 1.89	$ 1.86	$ 1.86
– diluted	2.15	2.20	2.10	2.06	2.01	1.88	1.85	1.85
Segments – net income (loss)								
Personal & Commercial Banking	$ 1,571	$ 1,538	$ 1,510	$ 1,459	$ 1,521	$ 1,404	$ 1,399	$ 1,360
Wealth Management	597	553	578	537	597	491	486	431
Insurance	166	318	158	172	127	265	161	166
Investor & Treasury Services	161	155	155	212	219	156	178	193
Capital Markets	653	666	698	665	748	584	611	668
Corporate Support	24	20	10	15	(200)	(63)	(39)	(9)
Net income	$ 3,172	$ 3,250	$ 3,109	$ 3,060	$ 3,012	$ 2,837	$ 2,796	$ 2,809
Effective income tax rate	19.5%	17.5%	20.2%	21.1%	25.6%	19.9%	22.1%	23.9%
Period average US$ equivalent of C$1.00	$ 0.749	$ 0.767	$ 0.767	$ 0.778	$ 0.794	$ 0.792	$ 0.770	$ 0.746

(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 2018 Annual Report.
(3) Effective November 1, 2017, we adopted IFRS 9, *Financial Instruments*. Under IFRS 9, PCL relates primarily to loans, acceptances, and commitments, and also applies to all financial assets except for those classified or designated as FVTPL and equity securities designated as fair value through other comprehensive income (FVOCI). Prior to the adoption of IFRS 9, PCL related only to loans, acceptances, and commitments. PCL on loans, acceptances, and commitments is comprised of PCL on impaired loans (Stage 3 PCL under IFRS 9 and PCL on impaired loans under IAS 39) and PCL on performing loans (Stage 1 and Stage 2 PCL under IFRS 9 and PCL on loans not yet identified as impaired under IAS 39).

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 results in lower client activity and may negatively impact the results of our Capital Markets' brokerage business and our Wealth Management's investment management business.

Trend analysis

Earnings have generally trended upward over the period. However, results in the first quarter of 2019 were impacted by challenging market conditions throughout the earlier part of the quarter. Quarterly earnings are also affected by foreign currency translation.

Personal & Commercial Banking revenue has benefitted from solid volume growth, higher spreads since the latter half of 2017, and higher fee-based revenue.

Wealth Management revenue has generally trended upwards primarily due to growth in average fee-based client assets which benefitted from net sales and market appreciation, and the impact of higher interest rates and volume growth driving higher net interest income since the first half of 2017. The change in the fair value of the hedges related to our U.S. share-based compensation plans, which is largely offset in Non-interest expense, also contributed to fluctuations in revenue over the period.

Insurance revenue fluctuated over the period, primarily due to the impact of changes in the fair value of investments backing our policyholder liabilities. Since 2017, revenues have generally benefitted from the impact of new group annuity and restructured international life contracts, which are largely offset in PBCAE. We have also benefitted from business growth in Canadian and International Insurance throughout 2018 and the first quarter of 2019.

Investor & Treasury Services revenue is impacted by fluctuations in market conditions and client activity. Revenue generally remained stable throughout the period, with the first half of 2018 trending higher due to generally higher market volatility, growth in client deposits, and increased client activity from our asset services business, combined with an increase in funding & liquidity performance, generally experienced in the first quarter of each year, driven by higher spreads and money market opportunities.

Capital Markets revenue is influenced, to a large extent, by market conditions and activity in the fixed income and equity trading business, with the first quarter results generally stronger than the remaining quarters. The second quarter of 2018 experienced lower equity originations driven by lower market activity, decreased fixed income trading across all regions, and lower equity trading revenue in the U.S. The decline experienced in the fourth quarter of 2018 largely resulted from lower fixed income trading revenue, primarily in North America. The first quarter of 2019 experienced higher equity and fixed income trading revenue, which was partially offset by lower debt and equity origination primarily in North America.

PCL saw a general improvement in 2017 due to lower provisions and higher recoveries in our Capital Markets and Canadian Banking portfolios and lower provisions on impaired assets for the majority of 2018. On November 1, 2017, we adopted IFRS 9, which resulted in the introduction of PCL on performing financial assets. PCL on performing assets has fluctuated over the period as it is impacted by macroeconomic conditions and volume growth. The fourth quarter of 2018 was also impacted by the restructuring of portfolios in Barbados. The first quarter of 2019 was impacted by a higher provision for impaired loans in Capital Markets taken on one account.

PBCAE has fluctuated quarterly as it includes the changes to the fair value of investments backing our policyholder liabilities, the impact of group annuity sales and restructured international life contracts, all of which are largely offset in Revenue. PBCAE has also increased due to business growth, and has been impacted by investment-related experience, and claims volumes over the period. The results are impacted by actuarial adjustments, which generally occur in the fourth quarter of each year.

While we continue to focus on efficiency management activities, Non-interest expense has generally trended upwards over the period. Growth in Non-interest expense over the period mainly reflects higher costs in support of business growth and our ongoing investments in technology and related costs, including digital initiatives. The increase in Non-interest expense in 2017 and 2018 mainly reflected higher variable compensation on improved results in Wealth Management and Capital Markets. The third quarter of 2017 was also impacted by higher severance costs. Fiscal 2018 was impacted by higher regulatory costs, and the decrease over the second and fourth quarter of 2018 mainly reflects the change in the fair value of our U.S. share-based compensation plans, which was largely offset in Revenue. The increase in the first quarter of 2019 also reflected the impact of foreign exchange translation and the change in the fair value of our U.S. share-based compensation plans, which was largely offset in Revenue, partially offset by seasonally lower marketing costs and lower professional fees.

Our effective income tax rate has fluctuated over the period, mostly due to varying levels of income reported in jurisdictions with different tax rates, as well as fluctuating levels of income from tax-advantaged sources and various levels of tax adjustments. The first quarter of 2018 was adversely impacted by the U.S. Tax Reform, which resulted in the write-down of net deferred tax assets, however, this was more than offset during 2018 by the ongoing lower corporate tax rate. Our effective income tax rate has generally been impacted over the period by net favourable tax adjustments and changes to the earnings mix.

Financial condition

Condensed balance sheets

	As at	
(Millions of Canadian dollars)	January 31 2019	October 31 2018
Assets		
Cash and due from banks	$ 40,033	$ 30,209
Interest-bearing deposits with banks	38,653	36,471
Securities, net of applicable allowance (1)	235,832	222,866
Assets purchased under reverse repurchase agreements and securities borrowed	297,660	294,602
Loans		
Retail	401,767	399,452
Wholesale	191,114	180,278
Allowance for loan losses	(3,061)	(2,912)
Other – Derivatives	84,816	94,039
– Other (2)	79,393	79,729
Total assets	$ 1,366,207	$ 1,334,734
Liabilities		
Deposits	$ 852,564	$ 837,046
Other – Derivatives	81,766	90,238
– Other (2)	341,972	318,364
Subordinated debentures	9,255	9,131
Total liabilities	1,285,557	1,254,779
Equity attributable to shareholders	80,553	79,861
Non-controlling interests	97	94
Total equity	80,650	79,955
Total liabilities and equity	$ 1,366,207	$ 1,334,734

(1) Securities are comprised of Trading and Investment securities.
(2) Other – Other assets and liabilities include Segregated fund net assets and liabilities, respectively.

Q1 2019 vs. Q4 2018

Total assets increased $31 billion or 2% from last quarter. Foreign exchange translation decreased total assets by $6 billion.

Cash and due from banks was up $10 billion, mainly due to higher deposits with central banks, reflecting short-term cash management activities.

Interest-bearing deposits with banks increased $2 billion or 6%, primarily due to higher deposits with central banks, reflecting our cash management activities.

Securities, net of applicable allowance, were up $13 billion or 6%, largely due to higher government debt trading securities.

Assets purchased under reverse repurchase agreements (reverse repos) and securities borrowed increased $3 billion or 1%, mainly attributable to increased client activities, partially offset by higher financial netting.

Loans were up $13 billion or 2%, largely due to volume growth, which led to higher wholesale loans and residential mortgages.

Derivative assets were down $9 billion or 10%, primarily attributable to the impact of foreign exchange translation on foreign exchange contracts.

Total liabilities increased $31 billion or 2%. Foreign exchange translation decreased total liabilities by $6 billion.

Deposits increased $16 billion or 2%, mainly as a result of higher retail deposits, driven by increased client activity and higher issuances of fixed-term notes due to funding requirements.

Derivative liabilities were down $8 billion or 9%, primarily attributable to the impact of foreign exchange translation on foreign exchange contracts.

Other liabilities increased $24 billion or 7%, mainly attributable to higher obligations related to repurchase agreements due to increased client activities and funding requirements, partially offset by higher financial netting.

Total equity increased $1 billion or 1%.

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 Q1 2019 Report to Shareholders. Our significant off-balance sheet transactions include those described on pages 47 to 49 of our 2018 Annual Report.

Risk management

Credit risk

Credit risk exposure by portfolio, sector and geography

The following table presents our credit risk exposures under the Basel regulatory defined classes and reflects exposures at default (EAD). The classification of our sectors aligns with our view of credit risk by industry. Beginning in Q1 2019 we have prospectively implemented the standardized approach for measuring counterparty credit risk (SA-CCR) under the Capital Adequacy Requirements (CAR) guidelines which primarily impacted on-balance sheet cash collateral and derivatives exposures.

	As at						
	January 31 2019						October 31 2018 (1)
	Credit risk			Counterparty credit risk (2)			
		Off-balance sheet amount (3)					
(Millions of Canadian dollars)	On-balance sheet amount	Undrawn	Other (4)	Repo-style transactions	Derivatives	Total exposure	Total exposure
Retail							
Residential secured (5)	$ 300,348	$ 61,224	$ –	$ –	$ –	$ 361,572	$ 358,395
Qualifying revolving (6)	25,025	70,202	–	–	–	95,227	89,840
Other retail	55,704	14,084	71	–	–	69,859	66,915
Total retail	$ 381,077	$ 145,510	$ 71	$ –	$ –	$ 526,658	$ 515,150
Wholesale							
Agriculture	$ 8,799	$ 1,723	$ 39	$ –	$ 64	$ 10,625	$ 10,358
Automotive	9,898	7,053	359	–	1,215	18,525	16,220
Banking	40,633	1,788	531	51,701	19,528	114,181	128,858
Consumer discretionary	16,770	7,810	611	–	522	25,713	24,592
Consumer staples	5,174	6,490	513	–	1,036	13,213	12,167
Oil & gas	6,868	10,784	1,440	–	1,370	20,462	20,090
Financial services	24,140	22,173	2,903	109,330	15,998	174,544	191,133
Financing products	1,351	1,389	358	167	1,017	4,282	3,214
Forest products	1,455	743	89	–	40	2,327	2,185
Governments	119,675	5,962	1,514	8,638	6,711	142,500	136,214
Industrial products	6,976	7,803	694	–	719	16,192	17,111
Information technology	6,387	5,948	191	–	4,031	16,557	12,155
Investments	15,870	1,046	389	13	176	17,494	17,670
Mining & metals	1,537	4,130	914	–	158	6,739	6,473
Public works & infrastructure	1,932	1,799	424	–	171	4,326	4,275
Real estates & related	56,858	11,259	1,373	–	661	70,151	68,045
Other services	25,314	11,332	918	1	1,091	38,656	37,774
Telecom & media	6,832	11,822	259	–	1,221	20,134	21,741
Transportation	5,691	5,857	2,272	–	1,517	15,337	14,916
Utilities	10,274	18,735	3,900	–	3,059	35,968	35,097
Other sectors	2,699	293	1	11	16,652	19,656	14,259
Total wholesale	$ 375,133	$ 145,939	$ 19,692	$ 169,861	$ 76,957	$ 787,582	$ 794,547
Total exposure (7)	$ 756,210	$ 291,449	$ 19,763	$ 169,861	$ 76,957	$ 1,314,240	$ 1,309,697
By geography (8)							
Canada	$ 522,082	$ 211,263	$ 9,956	$ 75,296	$ 32,521	$ 851,118	$ 833,074
U.S.	146,940	59,663	8,520	39,788	17,781	272,692	273,652
Europe	57,051	18,162	1,151	49,862	22,251	148,477	162,254
Other International	30,137	2,361	136	4,915	4,404	41,953	40,717
Total exposure (7)	$ 756,210	$ 291,449	$ 19,763	$ 169,861	$ 76,957	$ 1,314,240	$ 1,309,697

(1) Amounts previously reflected gross credit risk exposures.
(2) Counterparty credit risk EAD reflects exposure amounts after netting. Collateral is included in EAD for repo-style transactions to the extent allowed by regulatory guidelines.
(3) EAD for undrawn credit commitments and other off-balance sheet amounts are reported after the application of credit conversion factors.
(4) Includes other off-balance sheet exposures such as letters of credit and guarantees.
(5) Includes residential mortgages and home equity lines of credit.
(6) Includes credit cards, unsecured lines of credit and overdraft protection products.
(7) Excludes securitization, banking book equities and other assets not subject to the standardized or Internal Ratings Based Approach.
(8) Geographic profile is based on the country of residence of the borrower.

Q1 2019 vs. Q4 2018

Total credit risk exposure increased $5 billion from the prior quarter, primarily due to growth in loans and acceptances, higher deposits with central banks, and higher undrawn retail exposures, largely offset by decreases related to cash collateral and derivatives due to the adoption of SA-CCR in Q1 2019.

Retail exposure increased $12 billion or 2%, largely driven by growth in the qualifying revolving and residential secured portfolios.

Wholesale exposure decreased $7 billion or 1%, primarily due to the adoption of SA-CCR as noted above, and lower undrawn exposures partially offset by growth in loans and acceptances in the governments and other sectors.

The geographic mix of our credit risk exposure increased in Canada and decreased in Europe. Our exposure in Canada, the U.S., Europe and Other International was 65%, 21%, 11% and 3%, respectively (October 31, 2018 – 64%, 21%, 12% and 3%, respectively). The increase in Canada was largely driven by business growth in loans and acceptances. The decrease in Europe was driven by the reduction of cash collateral and derivatives both due to the adoption of SA-CCR as noted above.

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

	As at								
	January 31 2019								October 31 2018
	Asset type				Client type				
(Millions of Canadian dollars)	Loans Outstanding	Securities (3)	Repo-style transactions	Derivatives	Financials	Sovereign	Corporate	Total	Total
U.K.	$ 8,405	$ 22,688	$ 333	$ 1,361	$ 13,424	$ 11,558	$ 7,805	$ 32,787	$ 20,078
Germany	1,671	5,962	–	253	3,777	2,311	1,798	7,886	9,417
France	700	10,121	8	432	1,152	9,200	909	11,261	10,668
Total U.K., Germany, France	$ 10,776	$ 38,771	$ 341	$ 2,046	$ 18,353	$ 23,069	$ 10,512	$ 51,934	$ 40,163
Ireland	$ 795	$ 29	$ 327	$ 23	$ 408	$ 4	$ 762	$ 1,174	$ 931
Italy	83	167	–	19	118	63	88	269	677
Portugal	–	12	32	–	33	–	11	44	33
Spain	669	186	–	17	144	1	727	872	1,443
Total peripheral	$ 1,547	$ 394	$ 359	$ 59	$ 703	$ 68	$ 1,588	$ 2,359	$ 3,084
Luxembourg (4)	$ 1,875	$ 7,953	$ 242	$ 51	$ 1,516	$ 7,544	$ 1,061	$ 10,121	$ 9,000
Netherlands (4)	593	1,038	45	176	1,015	4	833	1,852	2,815
Norway	184	1,796	54	40	1,640	221	213	2,074	1,871
Sweden	224	3,593	46	9	2,334	1,295	243	3,872	4,308
Switzerland	451	5,537	140	114	515	5,258	469	6,242	6,835
Other	1,506	1,793	141	239	1,225	832	1,622	3,679	3,795
Total other Europe	$ 4,833	$ 21,710	$ 668	$ 629	$ 8,245	$ 15,154	$ 4,441	$ 27,840	$ 28,624
Net exposure to Europe (5)	$ 17,156	$ 60,875	$ 1,368	$ 2,734	$ 27,301	$ 38,291	$ 16,541	$ 82,133	$ 71,871

(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 $114.8 billion against repo-style transactions (October 31, 2018 – $111.1 billion) and $10.7 billion against derivatives (October 31, 2018 – $11.6 billion).
(3) Securities include $13.9 billion of trading securities (October 31, 2018 – $16.2 billion), $33.7 billion of deposits (October 31, 2018 – $23.3 billion), and $13.3 billion of securities carried at FVOCI (October 31, 2018 – $12.5 billion).
(4) Excludes $1.8 billion (October 31, 2018 – $2.5 billion) of exposures to supranational agencies.
(5) Reflects $1.5 billion of mitigation through credit default swaps, which are largely used to hedge single name exposures and market risk (October 31, 2018 – $1.2 billion).

Q1 2019 vs. Q4 2018

Net credit risk exposure to Europe increased $10 billion from last quarter, primarily driven by an increase in deposits with central banks. Our net exposure to peripheral Europe, which includes Ireland, Italy, Portugal and Spain, decreased $725 million during the quarter to $2.4 billion.

Our European corporate loan book is managed on a global basis with underwriting standards reflecting the same approach to the use of our balance sheet as we have applied in both Canada and the U.S. PCL on loans taken on this portfolio was not material this quarter. The gross impaired loans ratio of this loan book was 10 bps, unchanged from last quarter.

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:

	As at January 31, 2019						
	Residential mortgages						Home equity lines of credit
(Millions of Canadian dollars, except percentage amounts)	Insured (1)		Uninsured		Total		Total
Region (2)							
Canada							
Atlantic provinces	$ 7,575	54%	$ 6,579	46%	$ 14,154		$ 1,900
Quebec	12,777	40	19,387	60	32,164		3,644
Ontario	37,802	32	80,570	68	118,372		16,613
Alberta	20,490	55	17,010	45	37,500		6,619
Saskatchewan and Manitoba	8,950	51	8,593	49	17,543		2,475
B.C. and territories	15,274	31	33,946	69	49,220		8,302
Total Canada (3)	$ 102,868	38%	$ 166,085	62%	$ 268,953		$ 39,553
U.S. (4)	1	–	14,212	100	14,213		1,937
Other International (4)	7	–	3,139	100	3,146		1,443
Total International	$ 8	–%	$ 17,351	100%	$ 17,359		$ 3,380
Total	$ 102,876	36%	$ 183,436	64%	$ 286,312		$ 42,933

	As at October 31, 2018						
	Residential mortgages						Home equity lines of credit
(Millions of Canadian dollars, except percentage amounts)	Insured (1)		Uninsured		Total		Total
Region (2)							
Canada							
Atlantic provinces	$ 7,616	54%	$ 6,398	46%	$ 14,014		$ 1,926
Quebec	13,045	41	18,911	59	31,956		3,730
Ontario	38,708	33	77,649	67	116,357		16,811
Alberta	20,615	55	16,738	45	37,353		6,706
Saskatchewan and Manitoba	9,007	51	8,503	49	17,510		2,534
B.C. and territories	15,452	32	33,189	68	48,641		8,436
Total Canada (3)	$ 104,443	39%	$ 161,388	61%	$ 265,831		$ 40,143
U.S. (4)	1	–	13,492	100	13,493		2,099
Other International (4)	7	–	3,140	100	3,147		1,513
Total International	$ 8	–%	$ 16,632	100%	$ 16,640		$ 3,612
Total	$ 104,451	37%	$ 178,020	63%	$ 282,471		$ 43,755

(1) Insured residential mortgages are mortgages whereby our exposure to default is mitigated by insurance through the Canada Mortgage and Housing Corporation (CMHC) or other private mortgage default insurers.
(2) Region is based upon 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 $269 billion (October 31, 2018 – $266 billion) was largely comprised of $246 billion (October 31, 2018 – $243 billion) of residential mortgages and $7 billion (October 31, 2018 – $7 billion) of mortgages with commercial clients, of which $4 billion (October 31, 2018 – $4 billion) are insured mortgages, both in Canadian Banking, and $16 billion (October 31, 2018 – $16 billion) of residential mortgages in Capital Markets held for securitization purposes.
(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. As at January 31, 2019, home equity lines of credit in Canadian Banking were $39 billion (October 31, 2018 – $40 billion). Approximately 98% of these home equity lines of credit (October 31, 2018 – 98%) are secured by a first lien on real estate, and 7% (October 31, 2018 – 7%) of the total Homeline clients pay the scheduled interest payment only.

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:

	As at					
	January 31 2019			October 31 2018		
	Canada	U.S. and other International	Total	Canada	U.S. and other International	Total
Amortization period						
≤ 25 years	70%	39%	69%	70%	40%	68%
› 25 years ≤ 30 years	23	61	25	23	60	25
› 30 years ≤ 35 years	5	–	4	5	–	5
› 35 years	2	–	2	2	–	2
Total	100%	100%	100%	100%	100%	100%

Average loan-to-value (LTV) ratio for newly originated and acquired uninsured residential mortgages and Homeline products

The following table provides a summary of our average LTV ratio for newly originated and acquired uninsured residential mortgages and homeline products by geographic region:

	For the three months ended			
	January 31 2019		October 31 2018	
	Uninsured		Uninsured	
	Residential mortgages (1)	Homeline products (2)	Residential mortgages (1)	Homeline products (2)
Region (3)				
Atlantic provinces	74%	74%	72%	74%
Quebec	71	73	71	73
Ontario	70	67	70	67
Alberta	72	71	73	71
Saskatchewan and Manitoba	74	74	74	74
B.C. and territories	66	64	67	64
U.S.	74	n.m.	69	n.m.
Other International	71	n.m.	66	n.m.
Average of newly originated and acquired for the period (4), (5)	70%	68%	70%	68%
Total Canadian Banking residential mortgages portfolio (6)	56%	50%	55%	49%

(1) Residential mortgages exclude residential mortgages within the Homeline products.
(2) Homeline products are comprised of both residential mortgages and home equity lines of credit.
(3) Region is based upon 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 ratio for newly originated and acquired uninsured residential mortgages and Homeline products is calculated on a weighted basis by mortgage amounts at origination.
(5) For newly originated mortgages and Homeline products, LTV is calculated based on the total facility amount for the residential mortgage and Homeline 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

We employ a risk-based approach to property valuation. Property valuation methods include automated valuation models (AVM) and appraisals. An AVM is a tool that estimates the value of a property by reference to market data including sales of comparable properties and price trends specific to the Metropolitan Statistical Area in which the property being valued is located. Using a risk-based approach, we also employ appraisals which can include drive-by or full on-site appraisals.

We continue to actively manage our entire mortgage portfolio and to perform stress testing based on a combination of increasing unemployment, rising interest rates and a downturn in real estate markets.

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 (recovery of) credit loss

	For the three months ended		
(Millions of Canadian dollars, except percentage amounts)	January 31 2019	October 31 2018	January 31 2018
Personal & Commercial Banking	$ 347	$ 297	$ 312
Wealth Management	26	4	(2)
Capital Markets	143	32	25
Corporate Support and other	–	–	(1)
PCL – Loans	$ 516	$ 333	$ 334
PCL – Other financial assets	(2)	20	–
Total PCL	$ 514	$ 353	$ 334
Retail	$ 33	$ 26	$ 20
Wholesale	60	18	(11)
PCL on performing loans	$ 93	$ 44	$ 9
Retail	$ 269	$ 248	$ 245
Wholesale	154	41	80
PCL on impaired loans	$ 423	$ 289	$ 325
PCL – Loans	$ 516	$ 333	$ 334
PCL ratio – Loans (1)	0.34%	0.23%	0.24%
PCL on impaired loans ratio (2)	0.28%	0.20%	0.23%
Additional information by geography			
Canada (3)			
Residential mortgages	$ 10	$ 17	$ 10
Personal	121	121	113
Credit cards	116	115	107
Small business	5	6	7
Retail	252	259	237
Wholesale	41	22	34
PCL on impaired loans	$ 293	$ 281	$ 271
U.S. (3)			
Retail	$ 2	$ 1	$ 1
Wholesale	110	34	22
PCL on impaired loans	$ 112	$ 35	$ 23
Other International (3)			
Retail	$ 15	$ (12)	$ 7
Wholesale	3	(15)	24
PCL on impaired loans	$ 18	$ (27)	$ 31
PCL on impaired loans	$ 423	$ 289	$ 325

(1) PCL ratio – Loans is calculated using PCL on Loans as a percentage of average net loans and acceptances.
(2) PCL on impaired loans ratio is calculated using PCL on impaired loans as a percentage of average net loans and acceptances.
(3) Geographic information is based on residence of borrower.

Q1 2019 vs. Q1 2018

Total PCL was $514 million. PCL on loans of $516 million increased $182 million, or 54% from the prior year, mainly due to higher provisions in Capital Markets, Personal & Commercial Banking and Wealth Management. The PCL ratio on loans of 34 bps increased 10 bps.

PCL on performing loans of $93 million, compared to $9 million in the prior year, driven by unfavourable changes in certain near-term macroeconomic variables, largely impacting Capital Markets and Wealth Management.

PCL on impaired loans of $423 million was $98 million higher than the prior year, mainly due to increased provisions in Capital Markets and Personal & Commercial Banking.

PCL on loans in Personal & Commercial Banking increased $35 million, reflecting higher provisions on impaired loans across most portfolios.

PCL on loans in Wealth Management increased $28 million, primarily reflecting higher provisions on performing loans in U.S. Wealth Management (including City National) as described above.

PCL on loans in Capital Markets increased $118 million, largely driven by higher provisions on performing loans as described above. Higher provisions on impaired loans also contributed to the increase, mainly driven by one account in the utilities sector.

Q1 2019 vs. Q4 2018

PCL on loans of $516 million increased $183 million, or 55% from the prior quarter, mainly due to higher provisions in Capital Markets and Personal & Commercial Banking. The PCL ratio on loans of 34 bps increased 11 bps.

PCL on performing loans of $93 million, compared to $44 million in the prior quarter, was driven by unfavourable changes in certain near-term macroeconomic variables, largely impacting Capital Markets and Wealth Management.

PCL on impaired loans of $423 million increased $134 million from the prior quarter, mainly due to higher provisions in Capital Markets and Personal & Commercial Banking.

PCL on loans in Personal & Commercial Banking increased $50 million, primarily reflecting higher provisions on impaired loans in the Caribbean Banking and Canadian Business Banking portfolios.

PCL on loans in Wealth Management increased $22 million, primarily reflecting an increase in provisions on performing loans in U.S. Wealth Management (including City National) as described above.

PCL on loans in Capital Markets increased $111 million, largely driven by a provision on impaired loans taken on one account in the utilities sector. Higher PCL on performing loans also contributed to the increase.

Gross impaired loans

	As at		
(Millions of Canadian dollars, except percentage amounts)	January 31 2019	October 31 2018	January 31 2018
Personal & Commercial Banking	$ 1,653	$ 1,605	$ 1,713
Wealth Management	223	203	273
Capital Markets	906	375	541
Corporate Support and other	–	–	–
Total GIL	$ 2,782	$ 2,183	$ 2,527
Canada (1)			
Retail	$ 749	$ 723	$ 715
Wholesale	407	396	518
GIL	$ 1,156	$ 1,119	$ 1,233
U.S. (1)			
Retail	$ 30	$ 23	$ 39
Wholesale	949	401	386
GIL	$ 979	$ 424	$ 425
Other International (1)			
Retail	$ 331	$ 327	$ 327
Wholesale	316	313	542
GIL	$ 647	$ 640	$ 869
Total GIL	$ 2,782	$ 2,183	$ 2,527
Impaired loans, beginning balance	$ 2,183	$ 2,321	$ 2,576
Classified as impaired during the period (new impaired) (2)	1,133	553	694
Net repayments (2)	(99)	(107)	(126)
Amounts written off	(377)	(382)	(321)
Other (2), (3)	(58)	(202)	(296)
Impaired loans, balance at end of period	$ 2,782	$ 2,183	$ 2,527
GIL ratio (4)			
Total GIL ratio	0.46%	0.37%	0.45%
Personal & Commercial Banking	0.37%	0.37%	0.41%
Canadian Banking	0.26%	0.26%	0.29%
Caribbean Banking	6.54%	6.36%	6.44%
Wealth Management	0.37%	0.34%	0.52%
Capital Markets	0.90%	0.41%	0.67%

(1) Geographic information is based on residence of borrower.
(2) Certain GIL movements for Canadian Banking retail and wholesale portfolios are generally allocated to new impaired, as return to performing status, Net repayments, sold, and exchange and other movements amounts are not reasonably determinable. Certain GIL movements for Caribbean Banking retail and wholesale portfolios are generally allocated to Net repayments and new impaired, as return to performing status, sold, and exchange and other movements amounts are not reasonably determinable.
(3) Includes return to performing status during the period, recoveries of loans and advances previously written off, sold, and exchange and other movements.
(4) GIL as a % of related loans and acceptances.

Q1 2019 vs. Q1 2018

Total GIL of $2,782 million increased $255 million or 10% from the prior year, and the total GIL ratio of 46 bps increased 1 bp, mainly reflecting higher impaired loans in Capital Markets, partially offset by lower impaired loans in Personal & Commercial Banking and Wealth Management.

GIL in Personal & Commercial Banking decreased $60 million or 4%, primarily due to lower impaired loans in our Canadian Business Banking portfolios, partially offset by higher impaired loans in our Canadian Personal Banking and Caribbean Banking portfolios.

GIL in Wealth Management decreased $50 million or 18%, largely reflecting lower impaired loans in International Wealth Management and U.S. Wealth Management (including City National) due to repayments.

GIL in Capital Markets increased $365 million or 67%, mainly due to one account in the utilities sector. Movements in other sectors also contributed to the change.

Q1 2019 vs. Q4 2018

Total GIL increased $599 million or 27% from the prior quarter, and the total GIL ratio of 46 bps increased 9 bps.

GIL in Personal & Commercial Banking increased $48 million or 3%, largely due to higher impaired loans in our Canadian Banking portfolios.

GIL in Wealth Management increased $20 million or 10%, mainly reflecting higher impaired loans in U.S. Wealth Management (including City National).

GIL in Capital Markets increased $531 million, mainly due to one account in the utilities sector.

Allowance for credit losses (ACL)

	As at		
(Millions of Canadian dollars)	January 31 2019	October 31 2018	January 31 2018
Personal & Commercial Banking	$ 2,604	$ 2,536	$ 2,426
Wealth Management	202	202	218
Capital Markets	464	347	350
Corporate Support and other	3	3	1
ACL on loans	$ 3,273	$ 3,088	$ 2,995
ACL on other financial assets	69	71	103
Total ACL	$ 3,342	$ 3,159	$ 3,098
ACL on loans is comprised of:			
ACL on performing loans	$ 2,478	$ 2,388	$ 2,242
ACL on impaired loans	795	700	753
Retail	$ 1,785	$ 1,753	$ 1,643
Wholesale	693	635	599
ACL on performing loans	$ 2,478	$ 2,388	$ 2,242
Additional information by geography			
Canada (1)			
Retail	$ 176	$ 168	$ 153
Wholesale	111	92	140
ACL on impaired loans	$ 287	$ 260	$ 293
U.S. (1)			
Retail	$ 2	$ 1	$ 1
Wholesale	226	164	135
ACL on impaired loans	$ 228	$ 165	$ 136
Other International (1)			
Retail	$ 169	$ 166	$ 157
Wholesale	111	109	167
ACL on impaired loans	$ 280	$ 275	$ 324
ACL on impaired loans	$ 795	$ 700	$ 753

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

Q1 2019 vs. Q1 2018

Total ACL of $3,342 million increased $244 million or 8% from the prior year, reflecting an increase of $278 million in ACL on loans, partially offset by a decrease of $34 million in ACL on other financial assets.

ACL on performing loans of $2,478 million increased $236 million from the prior year, driven by unfavourable changes in certain near-term macroeconomic variables and volume growth, primarily impacting Personal & Commercial Banking. Capital Markets also contributed to the increase.

ACL on impaired loans of $795 million increased $42 million from the prior year, primarily due to higher ACL in Capital Markets, partially offset by lower ACL in Wealth Management.

ACL on other financial assets decreased $34 million, primarily due to the restructuring of Barbados securities in the prior year.

Q1 2019 vs. Q4 2018

Total ACL of $3,342 million increased $183 million or 6% from the prior quarter, reflecting an increase of $185 million in ACL on loans.

ACL on performing loans of $2,478 million was $90 million higher than the prior quarter, reflecting increased ACL in Capital Markets and Personal & Commercial Banking, driven by unfavourable changes in certain near-term macroeconomic variables.

ACL on impaired loans of $795 million increased $95 million from the prior quarter, primarily due to higher ACL in Capital Markets.

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 2018 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) and Stressed Value-at-Risk (SVaR).

Market risk controls are also in place to manage structural interest rate risk (SIRR) arising from traditional banking products. Factors contributing to SIRR include the mismatch between future asset and liability repricing dates, relative changes in asset and liability rates, and 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 SIRR, we assess two primary financial metrics, Net Interest Income (NII) risk and Economic Value of Equity (EVE) risk, under a range of market shocks and scenarios. For further details of our approach to the management of market risk, refer to the Market risk section of our 2018 Annual Report. There has been no material change to the SIRR measurement methodology, controls, or limits from those described in our 2018 Annual Report.

Market risk measures – FVTPL positions

VaR and SVaR

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

	January 31, 2019				October 31, 2018		January 31, 2018	
		For the three months ended				For the three months ended		For the three months ended
(Millions of Canadian dollars)	As at	Average	High	Low	As at	Average	As at	Average
Equity	$ 20	$ 22	$ 30	$ 14	$ 34	$ 16	$ 15	$ 16
Foreign exchange	4	6	13	3	12	5	3	3
Commodities	2	3	4	2	2	2	1	2
Interest rate (1)	14	16	19	12	15	15	12	17
Credit specific (2)	5	5	5	5	5	5	5	5
Diversification (3)	(15)	(18)	n.m.	n.m.	(29)	(19)	(14)	(18)
Market risk VaR	$ 30	$ 34	$ 45	$ 27	$ 39	$ 24	$ 22	$ 25
Market risk Stressed VaR	$ 113	$ 123	$ 161	$ 79	$ 91	$ 72	$ 84	$ 81

(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

Q1 2019 vs. Q1 2018

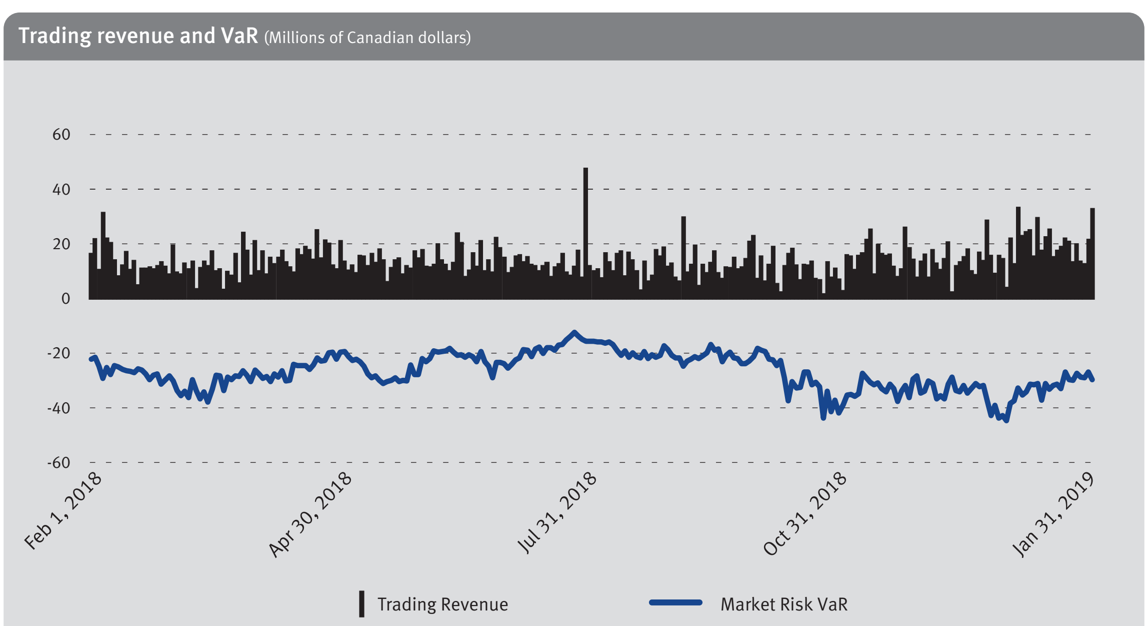
Average market risk VaR of $34 million increased $9 million from the prior year, primarily reflecting increased equity markets volatility impacting the historical window used to calculate VaR and the impact of foreign exchange translation.

Average SVaR of $123 million increased $42 million from the prior year, mainly due to growth in our fixed income portfolios and equity markets volatility. The impact of foreign exchange translation also contributed to the increase.

Q1 2019 vs. Q4 2018

Average market risk VaR of $34 million increased $10 million and average SVaR of $123 million increased $51 million from the prior quarter, mainly due to growth in our fixed income portfolios and equity markets volatility. The impact of foreign exchange translation also contributed to the increase.

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 January 31, 2019 and October 31, 2018.



Market risk measures for other FVTPL positions – 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 investment income within Total revenue 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 January 31, 2019, we had liabilities with respect to insurance obligations of $10.5 billion, up from $10.0 billion in the prior quarter, and assets of $8.6 billion in support of the liabilities, up from $8.1 billion last quarter.

Market risk measures – Structural Interest Rate 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 for our structural balance sheet, assuming no subsequent hedging. Rate floors are applied within the declining rates scenarios, with floor levels set based on rate changes experienced globally. Interest rate risk measures are based upon interest rate exposures at a specific time and continuously change as a result of business activities and management actions.

	January 31 2019						October 31 2018		January 31 2018	
	EVE risk			NII risk (1)						
(Millions of Canadian dollars)	Canadian dollar impact	U.S. dollar impact (2)	Total	Canadian dollar impact	U.S. dollar impact (2)	Total	EVE risk	NII risk (1)	EVE risk	NII risk (1)
Before-tax impact of:										
100bps increase in rates	$ (976)	$ (43)	$ (1,019)	$ 360	$ 127	$ 487	$ (1,140)	$ 505	$ (1,224)	$ 458
100bps decrease in rates	877	(328)	549	(468)	(149)	(617)	755	(582)	809	(578)

(1) Represents the 12-month NII exposure to an instantaneous and sustained shift in interest rates.
(2) Represents the impact on the SIRR portfolios held in our City National and U.S. banking operations.

As at January 31, 2019, an immediate and sustained -100 bps shock would have had a negative impact to our NII of $617 million, up from $582 million last quarter. An immediate and sustained +100 bps shock at the end of January 31, 2019 would have had a negative impact to the Bank's EVE of $1,019 million, down from $1,140 million reported last quarter. The quarter-over-quarter increase in NII risk was mainly attributed to interest rate changes and deposit growth. During the first quarter of 2019, NII and EVE risks remained well within approved limits.

Market risk measures for other material non-trading portfolios

Investment securities carried at FVOCI

We held $51.9 billion of investment securities carried at FVOCI as at January 31, 2019 compared to $48.5 billion in 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 January 31, 2019, 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 $21 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 SIRR measure as at January 31, 2019 was $6.0 billion, down from $7.1 billion in the prior quarter. Our investment securities carried at FVOCI also include equity exposures of $0.5 billion as at January 31, 2019 compared to $0.4 billion last quarter.

Derivatives related to non-trading activity

Derivatives are also used to hedge market risk exposures unrelated to our trading activity. In aggregate, derivative assets not related to trading activity of $2.5 billion as at January 31, 2019 were down from $2.8 billion last quarter, and derivative liabilities of $2.1 billion as at January 31, 2019 were down from $2.9 billion last quarter.

Non-trading derivatives in hedge accounting relationships

The derivative assets and liabilities described above include derivative assets in a designated hedge accounting relationship of $1.0 billion as at January 31, 2019, down from $1.5 billion as at October 31, 2018, and derivative liabilities of $1.6 billion as at January 31, 2019, down from $2.1 billion last quarter. These derivative assets and liabilities are included in our SIRR measure and other internal non-trading market risk measures. We use interest rate swaps to manage our investment securities and SIRR. To the extent these swaps are considered effective, changes in their fair value are recognized in Other comprehensive income. The interest rate risk for the swaps designated as cash flow hedges, measured as the change in the fair value of the derivatives for a one basis point parallel increase in yields, was $7 million as of January 31, 2019, unchanged from $7 million as of October 31, 2018.

Interest rate swaps are also used to hedge changes in the fair value of certain fixed-rate instruments. Changes in fair value of the hedged instruments that are related to interest rate movements and the corresponding interest rate swaps are reflected in the Consolidated Statement of Income.

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. Changes in the fair value of these hedges and the cumulative translation adjustment related to our structural foreign exchange risk are reported in other comprehensive income.

Other non-trading derivatives

Derivatives, including interest rate swaps and foreign exchange derivatives, that are not in designated hedge accounting relationships are used to manage other non-trading exposures. Changes in the fair value of these derivatives are reflected in the Consolidated Statement of Income. Derivative assets of $1.5 billion as at January 31, 2019 were up from $1.3 billion as at October 31, 2018, and derivative liabilities of $0.5 billion as at January 31, 2019 were down from $0.8 billion last 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 income 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.

Linkage of market risk to selected balance sheet items

The following table provides 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:

	As at January 31, 2019			
		Market risk measure		
(Millions of Canadian dollars)	Balance sheet amount	Traded risk (1)	Non-traded risk (2)	Non-traded risk primary risk sensitivity
Assets subject to market risk				
Cash and due from banks	$ 40,033	$ –	$ 40,033	Interest rate
Interest-bearing deposits with banks	38,653	22,859	15,794	Interest rate
Securities				
Trading	138,173	129,595	8,578	Interest rate, credit spread
Investment, net of applicable allowance	97,659	–	97,659	Interest rate, credit spread, equity
Assets purchased under reverse repurchase agreements and securities borrowed	297,660	223,953	73,707	Interest rate
Loans				
Retail	401,767	7,112	394,655	Interest rate
Wholesale	191,114	8,778	182,336	Interest rate
Allowance for loan losses	(3,061)	–	(3,061)	Interest rate
Segregated fund net assets	1,443	–	1,443	Interest rate
Derivatives	84,816	82,307	2,509	Interest rate, foreign exchange
Other assets	71,692	2,439	69,253	Interest rate
Assets not subject to market risk (3)	6,258			
Total assets	$ 1,366,207	$ 477,043	$ 882,906	
Liabilities subject to market risk				
Deposits	$ 852,564	$ 96,229	$ 756,335	Interest rate
Segregated fund liabilities	1,443	–	1,443	Interest rate
Other				
Obligations related to securities sold short	33,242	33,242	–	
Obligations related to assets sold under repurchase agreements and securities loaned	224,529	218,297	6,232	Interest rate
Derivatives	81,766	79,647	2,119	Interest rate, foreign exchange
Other liabilities	78,383	7,887	70,496	Interest rate
Subordinated debentures	9,255	–	9,255	Interest rate
Liabilities not subject to market risk (4)	4,375			
Total liabilities	$ 1,285,557	$ 435,302	$ 845,880	
Total equity	$ 80,650			
Total liabilities and equity	$ 1,366,207			

(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 the SIRR 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 SIRR.
(3) Assets not subject to market risk include $6,258 million of physical and other assets.
(4) Liabilities not subject to market risk include $4,375 million of payroll related and other liabilities.

	As at October 31, 2018			
		Market risk measure		
(Millions of Canadian dollars)	Balance sheet amount	Traded risk (1)	Non-traded risk (2)	Non-traded risk primary risk sensitivity
Assets subject to market risk				
Cash and due from banks	$ 30,209	$ –	$ 30,209	Interest rate
Interest-bearing deposits with banks	36,471	20,277	16,194	Interest rate
Securities				
Trading	128,258	120,163	8,095	Interest rate, credit spread
Investment, net of applicable allowance	94,608	–	94,608	Interest rate, credit spread, equity
Assets purchased under reverse repurchase agreements and securities borrowed	294,602	219,108	75,494	Interest rate
Loans				
Retail	399,452	4,307	395,145	Interest rate
Wholesale	180,278	9,128	171,150	Interest rate
Allowance for loan losses	(2,912)	–	(2,912)	Interest rate
Segregated fund net assets	1,368	–	1,368	Interest rate
Derivatives	94,039	91,275	2,764	Interest rate, foreign exchange
Other assets	71,655	2,259	69,396	Interest rate
Assets not subject to market risk (3)	6,706			
Total assets	$ 1,334,734	$ 466,517	$ 861,511	
Liabilities subject to market risk				
Deposits	$ 837,046	$ 82,281	$ 754,765	Interest rate
Segregated fund liabilities	1,368	–	1,368	Interest rate
Other				
Obligations related to securities sold short	32,247	32,247	–	
Obligations related to assets sold under repurchase agreements and securities loaned	206,814	201,839	4,975	Interest rate
Derivatives	90,238	87,352	2,886	Interest rate, foreign exchange
Other liabilities	72,116	7,661	64,455	Interest rate
Subordinated debentures	9,131	–	9,131	Interest rate
Liabilities not subject to market risk (4)	5,819			
Total liabilities	$ 1,254,779	$ 411,380	$ 837,580	
Total equity	$ 79,955			
Total liabilities and equity	$ 1,334,734			

(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 the SIRR 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 SIRR.
(3) Assets not subject to market risk include $6,706 million of physical and other assets.
(4) Liabilities not subject to market risk include $5,819 million of 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 as they come due. 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 2018 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.

Liquidity reserve

Our liquidity reserve consists of available unencumbered liquid assets as well as uncommitted and undrawn central bank borrowing facilities that could be accessed under extraordinary circumstances subject to satisfying certain preconditions as set by various Central Banks (e.g., BoC, the Fed, Bank of England, and Bank of France).

To varying degrees, unencumbered liquid assets represent a ready source of funding. Unencumbered assets are the difference between total and encumbered assets from both on- and off-balance sheet sources. Encumbered assets, in turn, are not considered a source of liquidity in measures of liquidity risk.

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 our liquidity reserve.

(Millions of Canadian dollars)	As at January 31, 2019 Bank-owned liquid assets	Securities received as collateral from securities financing derivative transactions	Total liquid assets	Encumbered liquid assets	Unencumbered liquid assets
Cash and due from banks	$ 40,033	$ –	$ 40,033	$ 2,585	$ 37,448
Interest-bearing deposits with banks	38,653	–	38,653	328	38,325
Securities issued or guaranteed by sovereigns, central banks or multilateral development banks (1)	196,493	277,661	474,154	329,626	144,528
Other securities	79,484	120,017	199,501	84,522	114,979
Undrawn credit lines granted by central banks (2)	10,722	–	10,722	–	10,722
Other assets eligible as collateral for discount (3)	95,157	–	95,157	–	95,157
Other liquid assets (4)	18,498	–	18,498	18,137	361
Total liquid assets	$ 479,040	$ 397,678	$ 876,718	$ 435,198	$ 441,520

(Millions of Canadian dollars)	As at October 31, 2018 Bank-owned liquid assets	Securities received as collateral from securities financing derivative transactions	Total liquid assets	Encumbered liquid assets	Unencumbered liquid assets
Cash and due from banks	$ 30,209	$ –	$ 30,209	$ 2,573	$ 27,636
Interest-bearing deposits with banks	36,471	–	36,471	366	36,105
Securities issued or guaranteed by sovereigns, central banks or multilateral development banks (1)	188,911	261,119	450,030	297,681	152,349
Other securities	78,090	126,209	204,299	84,589	119,710
Undrawn credit lines granted by central banks (2)	9,988	–	9,988	–	9,988
Other assets eligible as collateral for discount (3)	99,120	–	99,120	–	99,120
Other liquid assets (4)	19,758	–	19,758	19,406	352
Total liquid assets	$ 462,547	$ 387,328	$ 849,875	$ 404,615	$ 445,260

(Millions of Canadian dollars)	As at January 31 2019	October 31 2018
Royal Bank of Canada	$ 201,440	$ 219,197
Foreign branches	81,969	73,015
Subsidiaries	158,111	153,048
Total unencumbered liquid assets	$ 441,520	$ 445,260

(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) Includes loans that qualify as eligible collateral for the discount window facility available to us at the Federal Reserve Bank of New York (FRBNY). Amounts are face value and would be subject to collateral margin requirements applied by the FRBNY to determine collateral value/borrowing capacity. Access to the discount window borrowing program is conditional on meeting requirements set by the FRBNY and borrowings are typically expected to be infrequent and due to uncommon occurrences requiring temporary accommodation.
(3) Represents our unencumbered Canadian dollar non-mortgage loan book (at face value) that could, subject to satisfying conditions precedent to borrowing and application of prescribed collateral margin requirements, be pledged to the BoC for advances under its Emergency Lending Assistance (ELA) program. ELA is not considered a source of available liquidity in our normal liquidity risk profile but could in extraordinary circumstances, where normal market liquidity is seriously impaired, allow us and other banks to monetize assets eligible as collateral to meet requirements and mitigate further market liquidity disruption. The balance also includes our unencumbered mortgage loans that qualify as eligible collateral at Federal Home Loan Bank (FHLB).
(4) 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.

Q1 2019 vs. Q4 2018

Total liquid assets increased $27 billion or 3%, primarily due to an increase in on-balance sheet securities and securities received as collateral under reverse repurchase agreements and collateral swap transactions, and higher deposits with central banks, reflecting short-term cash management activities. However, the increase in collateral received was offset with a corresponding increase in collateral pledged under encumbered liquid assets due to repurchase transactions and collateral swap transactions.

Asset encumbrance

The table below provides a summary of 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 January 31, 2019, our Unencumbered assets available as collateral comprised 29% of total assets (October 31, 2018 – 29%).

Asset encumbrance

	As at									
	January 31 2019					October 31 2018				
	Encumbered		Unencumbered			Encumbered		Unencumbered		
(Millions of Canadian dollars)	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	$ –	$ 2,585	$ 37,448	$ –	$ 40,033	$ –	$ 2,573	$ 27,636	$ –	$ 30,209
Interest-bearing deposits with banks	–	328	38,325	–	38,653	–	366	36,105	–	36,471
Securities										
Trading	40,659	–	94,912	2,602	138,173	40,640	–	84,270	3,348	128,258
Investment, net of applicable allowance	14,047	–	83,550	62	97,659	12,195	–	82,351	62	94,608
Assets purchased under reverse repurchase agreements and securities borrowed (4)	379,112	22,633	35,373	9,041	446,159	348,597	22,188	53,590	5,722	430,097
Loans										
Retail										
Mortgage securities	30,494	–	37,069	–	67,563	34,286	–	36,234	–	70,520
Mortgage loans	44,961	–	14,400	159,388	218,749	36,959	–	17,784	157,208	211,951
Non-mortgage loans	9,251	–	58,701	47,503	115,455	8,553	–	59,611	48,817	116,981
Wholesale	–	–	33,302	157,812	191,114	–	–	32,478	147,800	180,278
Allowance for loan losses	–	–	–	(3,061)	(3,061)	–	–	–	(2,912)	(2,912)
Segregated fund net assets	–	–	–	1,443	1,443	–	–	–	1,368	1,368
Other – Derivatives	–	–	–	84,816	84,816	–	–	–	94,039	94,039
– Others (5)	18,137	–	361	59,452	77,950	19,406	–	352	58,603	78,361
Total assets	$ 536,661	$ 25,546	$ 433,441	$ 519,058	$1,514,706	$ 500,636	$ 25,127	$ 430,411	$ 514,055	$ 1,470,229

(1) Includes assets restricted from use to generate secured funding due to legal or other constraints.
(2) Includes loans that could be used to collateralize central bank advances. Our unencumbered Canadian dollar non-mortgage loan book (at face value) could, subject to satisfying conditions for borrowing and application of prescribed collateral margin requirements, be pledged to the BoC for advances under its ELA program. It also includes our unencumbered mortgage loans that qualify as eligible collateral at FHLB. We also lodge loans that qualify as eligible collateral for the discount window facility available to us at the FRBNY. ELA and other central bank facilities are not considered sources of available liquidity in our normal liquidity risk profile. However, banks could monetize assets meeting collateral criteria during periods of extraordinary and severe disruption to market-wide liquidity.
(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 since they may not be acceptable at central banks or for other lending programs.
(4) Includes bank-owned liquid assets and securities received as collateral from off-balance sheet securities financing, derivative transactions, and margin lending. Includes $22.6 billion (October 31, 2018 – $22.2 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 January 31, 2019, relationship-based deposits, which are the primary source of funding for retail loans and mortgages, were $551 billion or 49% of our total funding (October 31, 2018 – $545 billion or 50%). 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 liquidity asset buffers.

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

Long-term debt issuance

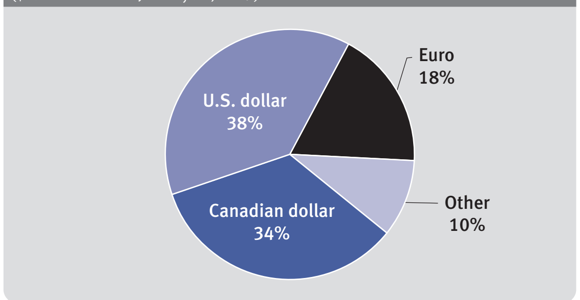
Our wholesale funding activities are well-diversified by geography, investor segment, instrument, currency, structure and maturity. We maintain an ongoing presence in different funding markets, which allows us to continuously monitor market developments and trends, identify opportunities and risks, and take appropriate and timely actions. We operate longer-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
• Canadian Shelf Program – $25 billion	• SEC Shelf Program – US$40 billion	• European Debt Issuance Program – US$40 billion
		• Global Covered Bond Program – €32 billion
		• Japanese Issuance Programs – ¥1 trillion

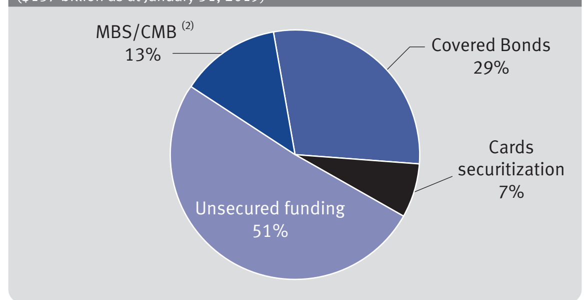
We also raise long-term funding using Canadian Deposit Notes, Canadian National Housing Act MBS, Canada Mortgage Bonds, credit card receivable-backed securities, Kangaroo Bonds (issued in the Australian domestic market by foreign firms) and Yankee Certificates of Deposit (issued in the U.S. domestic 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.

Long-term debt(1) – funding mix by currency of issuance
($137 billion as at January 31, 2019)



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

Long-term debt(1) – funding mix by product
($137 billion as at January 31, 2019)



(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)

	As at January 31, 2019							
(Millions of Canadian dollars)	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)	$ 4,141	$ 29	$ 709	$ –	$ 4,879	$ –	$ –	$ 4,879
Certificates of deposit and commercial paper	5,461	16,769	16,232	15,804	54,266	66	131	54,463
Asset-backed commercial paper (3)	2,029	3,160	6,183	4,702	16,074	–	–	16,074
Senior unsecured medium-term notes (4)	121	7,400	6,180	4,282	17,983	25,540	31,213	74,736
Senior unsecured structured notes (5)	65	275	450	1,759	2,549	1,511	5,514	9,574
Mortgage securitization	–	527	513	1,109	2,149	3,660	11,597	17,406
Covered bonds/asset-backed securities (6)	1,313	3,338	1,503	3,932	10,086	12,167	26,836	49,089
Subordinated liabilities	–	–	1,000	2,095	3,095	2,499	3,798	9,392
Other (7)	9,373	2,810	3,189	1,855	17,227	157	9,065	26,449
Total	$ 22,503	$ 34,308	$ 35,959	$ 35,538	$ 128,308	$ 45,600	$ 88,154	$ 262,062
Of which:								
– Secured	$ 11,764	$ 8,945	$ 10,169	$ 10,794	$ 41,672	$ 15,827	$ 38,433	$ 95,932
– Unsecured	10,739	25,363	25,790	24,744	86,636	29,773	49,721	166,130

	As at October 31, 2018							
(Millions of Canadian dollars)	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)	$ 4,507	$ 10	$ 42	$ –	$ 4,559	$ –	$ –	$ 4,559
Certificates of deposit and commercial paper	3,658	9,000	20,994	14,926	48,578	197	132	48,907
Asset-backed commercial paper (3)	1,908	2,581	5,877	6,197	16,563	–	–	16,563
Senior unsecured medium-term notes (4)	122	6,132	7,424	8,090	21,768	23,125	33,513	78,406
Senior unsecured structured notes (5)	185	215	353	693	1,446	2,603	5,608	9,657
Mortgage securitization	–	2,473	527	1,099	4,099	3,027	12,193	19,319
Covered bonds/asset-backed securities (6)	–	21	4,641	5,409	10,071	8,581	26,861	45,513
Subordinated liabilities	–	–	–	1,103	1,103	2,993	5,301	9,397
Other (7)	7,639	1,658	419	1,189	10,905	4	9,122	20,031
Total	$ 18,019	$ 22,090	$ 40,277	$ 38,706	$ 119,092	$ 40,530	$ 92,730	$ 252,352
Of which:								
– Secured	$ 8,292	$ 5,666	$ 11,045	$ 12,706	$ 37,709	$ 11,608	$ 39,054	$ 88,371
– Unsecured	9,727	16,424	29,232	26,000	81,383	28,922	53,676	163,981

(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 $8,240 million (October 31, 2018 – $6,978 million), bearer deposit notes (unsecured) of $4,176 million (October 31, 2018 – $4,084 million), other long-term structured deposits (unsecured) of $8,910 million (October 31, 2018 – $8,969 million), and FHLB advances (secured) of $5,123 million (October 31, 2018 – $nil).

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.

The following table presents our major credit ratings (1):

Credit ratings

	As at February 21, 2019			
	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	AA (low)	positive

(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 Canadian Bank Recapitalization (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 July 16, 2018, Moody's upgraded our legacy senior long-term debt rating two notches and revised our outlook to stable from negative. On July 16, 2018, Moody's also announced our rating for senior long-term debt of A2.
(5) On June 27, 2018, S&P revised our outlook to stable from negative. On August 16, 2018, S&P announced our rating for senior long-term debt of A.
(6) On June 21, 2018, Fitch Ratings announced that our rating for senior long-term debt will be the same as our legacy senior long-term debt, as they did not expect any immediate rating changes as a result of the Bail-in regime. On October 22, 2018, Fitch Ratings affirmed our ratings with a stable outlook.
(7) On June 26, 2018, DBRS revised our outlook to positive from stable. On April 19, 2018, DBRS announced our rating for senior long-term debt of AA (low).

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 of positions with collateralized counterparties moving from a negative to a positive position. There is no outstanding senior debt issued in the market that contains rating triggers that would lead to early prepayment of principal.

Additional contractual obligations for rating downgrades

	As at					
	January 31 2019			October 31 2018		
(Millions of Canadian dollars)	One-notch downgrade	Two-notch downgrade	Three-notch downgrade	One-notch downgrade	Two-notch downgrade	Three-notch downgrade
Contractual derivatives funding or margin requirements	$ 179	$ 63	$ 150	$ 125	$ 45	$ 191
Other contractual funding or margin requirements (1)	185	176	–	185	176	–

(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 Basel Committee on Banking Supervision (BCBS) and OSFI regulatory minimum coverage level for LCR is currently 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)

(Millions of Canadian dollars, except percentage amounts)	For the three months ended January 31 2019 Total unweighted value (average) (2)	January 31 2019 Total weighted value (average)	October 31 2018 Total unweighted value (average) (2)	October 31 2018 Total weighted value (average)
High-quality liquid assets				
Total high-quality liquid assets (HQLA)	n.a.	$ 221,751	n.a.	$ 212,818
Cash outflows				
Retail deposits and deposits from small business customers, of which:	$ 257,222	19,754	$ 252,514	19,398
Stable deposits (3)	85,262	2,558	83,611	2,508
Less stable deposits	171,960	17,196	168,903	16,890
Unsecured wholesale funding, of which:	291,119	132,359	285,140	129,249
Operational deposits (all counterparties) and deposits in networks of cooperative banks (4)	127,648	30,410	126,889	30,276
Non-operational deposits	141,227	79,705	136,572	77,294
Unsecured debt	22,244	22,244	21,679	21,679
Secured wholesale funding	n.a.	33,728	n.a.	29,837
Additional requirements, of which:	269,708	80,563	260,417	79,668
Outflows related to derivative exposures and other collateral requirements	64,633	44,379	61,154	42,867
Outflows related to loss of funding on debt products	4,532	4,532	6,232	6,232
Credit and liquidity facilities	200,543	31,652	193,031	30,569
Other contractual funding obligations (5)	19,966	19,966	26,811	26,811
Other contingent funding obligations (6)	427,209	7,601	420,344	7,557
Total cash outflows	n.a.	$ 293,971	n.a.	$ 292,520
Cash inflows				
Secured lending (e.g., reverse repos)	$ 279,932	$ 54,853	$ 233,784	$ 49,183
Inflows from fully performing exposures	13,697	9,631	14,345	10,156
Other cash inflows	56,739	56,739	59,683	59,683
Total cash inflows	n.a.	$ 121,223	n.a.	$ 119,022
		Total adjusted value		Total adjusted value
Total HQLA		$ 221,751		$ 212,818
Total net cash outflows		172,748		173,498
Liquidity coverage ratio		128%		123%

(1) The LCR is calculated in accordance with OSFI's LAR guideline, which, in turn, reflects liquidity-related requirements issued by the BCBS. The LCR for the quarter ended January 31, 2019 is calculated as an average of 62 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 (SMEs), 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%).
n.a. not applicable

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 84% 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.

Q1 2019 vs. Q4 2018

The average LCR for the quarter ended January 31, 2019 was 128%, which translates into a surplus of approximately $49 billion, compared to 123% in the prior quarter. The increase in the LCR surplus from the previous quarter is primarily due to a change in funding and business mix.

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 2018 Annual Report.

	As at January 31, 2019									
(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	$ 76,344	$ 3	$ –	$ –	$ –	$ –	$ –	$ –	$ 2,339	$ 78,686
Securities										
Trading (1)	96,872	19	53	–	21	50	70	7,411	33,677	138,173
Investment, net of applicable allowance	1,868	3,935	3,110	2,556	2,530	13,199	29,140	40,827	494	97,659
Assets purchased under reverse repurchase agreements and securities borrowed	179,266	64,013	21,311	10,609	13,659	610	–	–	8,192	297,660
Loans, net of applicable allowance	20,699	16,596	26,144	23,958	27,730	124,862	215,764	47,888	86,179	589,820
Other										
Customers' liability under acceptances	11,152	5,605	17	–	2	5	–	–	(31)	16,750
Derivatives	5,056	6,624	4,549	2,586	4,634	9,269	16,174	35,920	4	84,816
Other financial assets	23,621	1,139	682	60	197	117	243	1,765	2,148	29,972
Total financial assets	$ 414,878	$ 97,934	$ 55,866	$ 39,769	$ 48,773	$ 148,112	$ 261,391	$ 133,811	$ 133,002	$ 1,333,536
Other non-financial assets	2,129	1,300	416	493	627	1,142	1,291	1,402	23,871	32,671
Total assets	$ 417,007	$ 99,234	$ 56,282	$ 40,262	$ 49,400	$ 149,254	$ 262,682	$ 135,213	$ 156,873	$ 1,366,207
Liabilities and equity										
Deposits (2)										
Unsecured borrowing	$ 51,080	$ 46,688	$ 39,785	$ 36,807	$ 30,939	$ 38,178	$ 53,336	$ 14,950	$ 437,877	$ 749,640
Secured borrowing	3,608	6,400	7,080	6,053	2,659	9,648	21,529	5,961	–	62,938
Covered bonds	–	2,599	1,509	3,004	–	11,988	17,331	3,555	–	39,986
Other										
Acceptances	11,149	5,605	16	2	–	6	–	–	3	16,781
Obligations related to securities sold short	33,242	–	–	–	–	–	–	–	–	33,242
Obligations related to assets sold under repurchase agreements and securities loaned	183,875	29,749	2,892	159	–	496	–	–	7,358	224,529
Derivatives	5,450	6,902	4,535	3,041	3,811	7,960	14,816	35,244	7	81,766
Other financial liabilities	27,942	2,000	2,543	1,435	371	162	588	6,894	810	42,745
Subordinated debentures	–	–	–	102	–	–	317	8,836	–	9,255
Total financial liabilities	$ 316,346	$ 99,943	$ 58,360	$ 50,603	$ 37,780	$ 68,438	$ 107,917	$ 75,440	$ 446,055	$ 1,260,882
Other non-financial liabilities	1,156	847	191	902	1,957	643	768	10,043	8,168	24,675
Equity	–	–	–	–	–	–	–	–	80,650	80,650
Total liabilities and equity	$ 317,502	$100,790	$ 58,551	$ 51,505	$ 39,737	$ 69,081	$ 108,685	$ 85,483	$ 534,873	$ 1,366,207
Off-balance sheet items										
Financial guarantees	$ 291	$ 1,450	$ 2,598	$ 1,933	$ 3,074	$ 1,506	$ 4,764	$ 713	$ 51	$ 16,380
Lease commitments	66	131	200	199	191	724	1,558	2,820	–	5,889
Commitments to extend credit	1,372	5,036	8,245	10,037	15,554	35,718	172,094	14,821	209	263,086
Other credit-related commitments	574	1,047	1,477	1,098	1,425	494	699	114	102,298	109,226
Other commitments	23	–	–	–	–	–	–	–	527	550
Total off-balance sheet items	$ 2,326	$ 7,664	$ 12,520	$ 13,267	$ 20,244	$ 38,442	$ 179,115	$ 18,468	$ 103,085	$ 395,131

(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) 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 October 31, 2018									
(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	$ 64,201	$ 2	$ –	$ –	$ –	$ –	$ –	$ –	$ 2,477	$ 66,680
Securities										
Trading (1)	86,551	20	22	16	1	52	72	6,982	34,542	128,258
Investment, net of applicable allowance	3,529	6,855	1,419	2,593	2,399	12,989	25,061	39,396	367	94,608
Assets purchased under reverse repurchase agreements and securities borrowed	168,810	66,854	28,828	10,298	11,692	552	–	–	7,568	294,602
Loans, net of applicable allowance	22,534	14,967	21,079	26,753	25,271	122,687	211,768	44,191	87,568	576,818
Other										
Customers' liability under acceptances	10,774	4,788	94	1	–	5	–	–	(21)	15,641
Derivatives	6,070	10,179	4,930	4,032	3,030	11,130	18,067	36,581	20	94,039
Other financial assets	25,670	873	938	78	157	112	231	1,758	2,120	31,937
Total financial assets	$ 388,139	$ 104,538	$ 57,310	$ 43,771	$ 42,550	$ 147,527	$ 255,199	$ 128,908	$ 134,641	$ 1,302,583
Other non-financial assets	1,809	1,268	590	364	559	971	1,352	1,125	24,113	32,151
Total assets	$ 389,948	$ 105,806	$ 57,900	$ 44,135	$ 43,109	$ 148,498	$ 256,551	$ 130,033	$ 158,754	$ 1,334,734
Liabilities and equity										
Deposits (2)										
Unsecured borrowing	$ 46,793	$ 33,849	$ 47,209	$ 30,511	$ 36,116	$ 34,641	$ 50,792	$ 15,693	$ 440,246	$ 735,850
Secured borrowing	2,340	6,571	9,321	5,433	4,232	7,135	23,388	5,902	–	64,322
Covered bonds	–	–	2,579	1,499	2,982	10,022	16,360	3,432	–	36,874
Other										
Acceptances	10,775	4,787	94	1	–	5	–	–	–	15,662
Obligations related to securities sold short	32,247	–	–	–	–	–	–	–	–	32,247
Obligations related to assets sold under repurchase agreements and securities loaned	146,205	44,248	9,030	91	–	–	–	–	7,240	206,814
Derivatives	5,998	8,585	4,650	4,176	3,311	9,808	17,205	36,496	9	90,238
Other financial liabilities	27,414	1,003	582	233	414	154	522	6,784	733	37,839
Subordinated debentures	–	–	–	–	103	–	318	8,710	–	9,131
Total financial liabilities	$ 271,772	$ 99,043	$ 73,465	$ 41,944	$ 47,158	$ 61,765	$ 108,585	$ 77,017	$ 448,228	$ 1,228,977
Other non-financial liabilities	992	5,095	346	183	157	765	868	9,449	7,947	25,802
Equity	–	–	–	–	–	–	–	–	79,955	79,955
Total liabilities and equity	$ 272,764	$ 104,138	$ 73,811	$ 42,127	$ 47,315	$ 62,530	$ 109,453	$ 86,466	$ 536,130	$ 1,334,734
Off-balance sheet items										
Financial guarantees	$ 532	$ 2,026	$ 1,647	$ 2,696	$ 1,337	$ 1,910	$ 4,179	$ 1,125	$ 50	$ 15,502
Lease commitments	66	131	194	199	194	695	1,517	2,814	–	5,810
Commitments to extend credit	4,122	3,417	8,736	9,667	11,406	33,030	168,071	23,899	269	262,617
Other credit-related commitments	577	795	1,586	1,498	1,324	478	680	148	107,499	114,585
Other commitments	141	–	–	–	–	–	–	–	556	697
Total off-balance sheet items	$ 5,438	$ 6,369	$ 12,163	$ 14,060	$ 14,261	$ 36,113	$ 174,447	$ 27,986	$ 108,374	$ 399,211

(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) 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 2018 Annual Report. In addition, we continue to monitor and prepare for new regulatory capital developments, including the BCBS Basel III reforms, in order to ensure timely and accurate compliance with these requirements. For additional details on new regulatory developments that relate to our Capital Management Framework, refer to the Capital, liquidity and other regulatory developments section of this Q1 2019 Report to Shareholders.

OSFI expects Canadian banks to meet the Basel III targets for CET1, Tier 1 and Total capital ratios. Effective January 1, 2014, OSFI allowed Canadian banks to phase in the Basel III Credit Valuation Adjustment (CVA) risk capital charge over a five-year period ending December 31, 2018. As of January 1, 2019, the CVA scalars were fully phased-in for each tier of capital, resulting in all tiers of capital having the same risk weighted assets value. In fiscal 2018, the CVA scalars were 80%, 83% and 86% for CET1, Tier 1 and Total capital, respectively.

The Financial Stability Board (FSB) has 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%. As the Domestic Systemically Important Bank (D-SIB) requirement is equivalent to the G-SIB requirement of 1% of RWA, the G-SIB designation had no further impact to the loss absorbency requirements on our CET1 ratio. We provide our G-SIB assessment indicators below.

On April 18, 2018, OSFI released its final 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 FSB 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 banks 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 Canada Deposit Insurance Corporation (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. The risk-based TLAC ratio is defined as TLAC divided by Total risk-weighted assets (RWA) while the TLAC leverage ratio is defined as TLAC divided by the Leverage ratio exposure. OSFI has provided notification requiring systemically important banks to maintain a minimum TLAC ratio of 23.25%, which includes the revised Domestic Stability Buffer (DSB) as noted below, and 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 improving our TLAC ratio. We expect our TLAC ratio to improve through normal course refinancing of maturing unsecured term debt.

Effective November 1, 2018, we are required to adopt OSFI's revisions to the CAR guidelines relating to the securitization framework and the standardized approach for measuring counterparty credit risk (SA-CCR).

For further details on regulatory developments, refer to the Capital, liquidity and other regulatory developments section of this Q1 2019 Report to Shareholders.

The following table provides a summary of OSFI's current 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 ratios and leverage	OSFI regulatory target requirements for large banks under Basel III					RBC capital and leverage ratios as at January 31, 2019	Domestic Stability Buffer (3)	Minimum including Capital Buffers, D-SIB/G-SIB surcharge and Domestic Stability Buffer
	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%	11.4%	1.5%	> 9.5%
Tier 1 capital	> 6.0%	2.5%	> 8.5%	1.0%	> 9.5%	12.7%	1.5%	> 11.0%
Total capital	> 8.0%	2.5%	> 10.5%	1.0%	> 11.5%	14.5%	1.5%	> 13.0%
Leverage ratio	> 3.0%	n.a.	> 3.0%	n.a.	> 3.0%	4.3%	n.a.	> 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 June 20, 2018, OSFI required the public disclosure of their Pillar 2 DSB. Effective April 30, 2019, OSFI has raised the level for the DSB to 1.75% of RWA.
n.a. not applicable

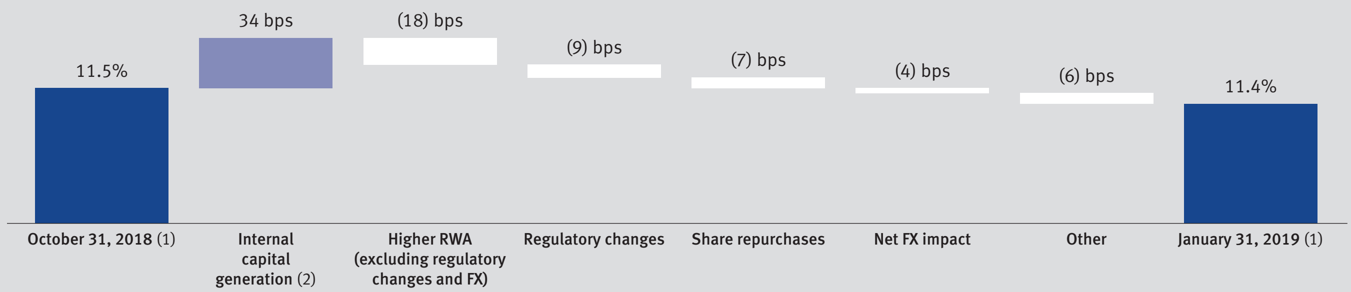
The following table provides details on our regulatory capital, RWA, and capital and leverage ratios. Our capital position remains strong and our capital and leverage ratios remain well above OSFI regulatory targets.

	As at		
(Millions of Canadian dollars, except percentage amounts and as otherwise noted)	January 31 2019	October 31 2018	January 31 2018
Capital (1)			
CET1 capital	$ 57,963	$ 57,001	$ 51,145
Tier 1 capital	64,341	63,279	57,925
Total capital	73,758	72,494	66,984
Risk-weighted Assets (RWA) used in calculation of capital ratios (1), (2)			
CET1 capital RWA	$ 508,512	$ 495,528	$ 466,758
Tier 1 capital RWA	508,512	495,993	466,758
Total capital RWA	508,512	496,459	466,758
Total capital RWA consisting of: (1)			
Credit risk	$ 410,003	$ 401,534	$ 375,260
Market risk	34,862	32,209	30,100
Operational risk	63,647	62,716	60,119
Regulatory floor adjustment (3)	–	–	1,279
Total capital RWA	$ 508,512	$ 496,459	$ 466,758
Capital ratios and Leverage ratio (1)			
CET1 ratio	11.4%	11.5%	11.0%
Tier 1 capital ratio	12.7%	12.8%	12.4%
Total capital ratio	14.5%	14.6%	14.4%
Leverage ratio	4.3%	4.4%	4.2%
Leverage ratio exposure (billions)	$ 1,501.8	$ 1,450.8	$ 1,363.9

(1) Capital, RWA, and capital ratios are calculated using OSFI's Capital Adequacy Requirements based on the Basel III framework. The Leverage ratio is calculated using OSFI Leverage Requirements Guideline based on the Basel III framework.
(2) In fiscal 2018, amounts included CVA scalars of 80%, 83% and 86%, respectively.
(3) Since the introduction of Basel II in 2008, OSFI has prescribed a capital floor requirement for institutions that use the advanced internal ratings-based (AIRB) approach for credit risk. Effective February 1, 2018, the minimum capital floor will be required if the capital requirement under the Basel III Standards, as specified by OSFI, is less than 75% of the RWA based on the standardized Basel II approach. Prior to February 1, 2018, the threshold was 90% of the capital requirements as calculated under Basel I.

Q1 2019 vs. Q4 2018

Continuity of CET1 ratio (Basel III)



(1) Represents rounded figures.
(2) Internal capital generation of $1.7 billion which represents Net income available to shareholders, less common and preferred shares dividends.

Our CET1 ratio was 11.4%, down 10 bps from last quarter, mainly reflecting higher RWA due to business growth, regulatory changes relating to the phase-out of the CVA scalars and revisions to the CAR guidelines, as noted previously, and share repurchases, partially offset by internal capital generation.

CET1 capital RWA increased $13 billion, driven by business growth in wholesale and retail lending, and market risk portfolios. The impact of regulatory changes in the current quarter also contributed to the increase.

Our Tier 1 capital ratio of 12.7% was down 10 bps, reflecting the factors noted above under the CET1 ratio. Tier 1 capital ratio was also favourably impacted by net preferred share issuances.

Our Total capital ratio of 14.5% was down 10 bps, reflecting the factors noted above under the Tier 1 ratio.

Our Leverage ratio of 4.3% was down 10 bps from last quarter, primarily due to growth in leverage ratio exposures, mainly in loans and securities, regulatory changes, and share repurchases, partially offset by internal capital generation.

Selected capital management activity

The following table provides our selected capital management activity:

	For the three months ended January 31, 2019		
(Millions of Canadian dollars, except number of shares)	Issuance or redemption date	Number of shares (000s)	Amount
Tier 1 capital			
Common shares activity			
Issued in connection with share-based compensation plans (1)		159	$ 11
Purchased for cancellation		(3,684)	(45)
Issuance of preferred shares, Series BO (2)	November 2, 2018	14,000	350
Redemption of preferred shares, Series AD (2)	November 24, 2018	(10,000)	(250)

(1) Amounts include cash received for stock options exercised during the period and includes fair value adjustments to stock options.
(2) For further details, refer to Note 9 of our Condensed Financial Statements.

On February 23, 2018, we announced a normal course issuer bid (NCIB) to purchase up to 30 million of our common shares. The NCIB commenced on February 27, 2018 and will continue until February 26, 2019 or such earlier date as we complete the repurchase of all shares permitted under the bid. We determine the amount and timing of the purchases under the 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 at the prevailing market price at the time of acquisition.

For the three-months ended January 31, 2019, the total number of common shares repurchased and cancelled under our NCIB program was approximately 3.7 million. The total cost of the shares repurchased was $348 million.

Since the inception of the current NCIB, the total number of common shares repurchased and cancelled under our NCIB program was approximately 9.7 million, at a cost of approximately $947 million.

On November 2, 2018, we issued 14 million Non-Cumulative 5-Year Rate Reset Preferred Shares Series BO at a price of $25 per share.

On November 24, 2018, we redeemed all 10 million Non-Cumulative First Preferred Shares Series AD at a price of $25 per share.

We have also announced our intention to redeem all 2.4 million Non-Cumulative Floating Rate First Preferred Shares Series AK, all 13.6 million Non-Cumulative 5-Year Rate Reset First Preferred Shares Series AJ, and all 12 million Non-Cumulative 5-Year Rate Reset First Preferred Shares Series AL, on February 24, 2019. The shares will be redeemed at a price of $25 per share.

Selected share data

(Millions of Canadian dollars, except number of shares and as otherwise noted)	As at January 31, 2019 Number of shares (000s)	Amount	Dividends declared per share
Common shares issued (1)	1,435,505	$ 17,601	$ 0.98
Treasury shares – common shares	(432)	(36)	
Common shares outstanding	1,435,073	$ 17,565	
Stock options and awards			
Outstanding	9,435		
Exercisable	4,589		
First preferred shares issued			
Non-cumulative Series W (2)	12,000	$ 300	$ 0.31
Non-cumulative Series AA	12,000	300	0.28
Non-cumulative Series AC	8,000	200	0.29
Non-cumulative Series AE	10,000	250	0.28
Non-cumulative Series AF	8,000	200	0.28
Non-cumulative Series AG	10,000	250	0.28
Non-cumulative Series AJ (3)	13,579	339	0.22
Non-cumulative Series AK (3)	2,421	61	0.23
Non-cumulative Series AL (3)	12,000	300	0.27
Non-cumulative Series AZ (3), (4)	20,000	500	0.25
Non-cumulative Series BB (3), (4)	20,000	500	0.24
Non-cumulative Series BD (3), (4)	24,000	600	0.23
Non-cumulative Series BF (3), (4)	12,000	300	0.23
Non-cumulative Series BH (4)	6,000	150	0.31
Non-cumulative Series BI (4)	6,000	150	0.31
Non-cumulative Series BJ (4)	6,000	150	0.33
Non-cumulative Series BK (3), (4)	29,000	725	0.34
Non-cumulative Series BM (3), (4)	30,000	750	0.34
Non-cumulative Series BO (3), (4)	14,000	350	0.37
Non-cumulative Series C-2 (5)	20	31	US$ 16.88
Preferred shares issued	255,020	$ 6,406	
Treasury shares – preferred shares (6)	7	–	
Preferred shares outstanding	255,027	$ 6,406	
Dividends			
Common		$ 1,407	
Preferred		74	

(1) For further details about our capital management activity, refer to Note 9 of our Condensed Financial Statements.
(2) Effective February 24, 2010, we have the right to convert these shares into common shares at our option, subject to certain restrictions.
(3) Dividend rate will reset every five years.
(4) Non-viable contingent capital (NVCC) instruments.
(5) Represents 815,400 depositary shares relating to preferred shares Series C-2. Each depositary share represents one-fortieth interest in a share of Series C-2.
(6) Positive amounts represent a short position in treasury shares.

As at February 15, 2019, the number of outstanding common shares were 1,435,383,084, net of treasury shares held of 207,046 and the number of stock options and awards were 9,347,472.

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, which are the preferred shares Series AZ, preferred shares Series BB, preferred shares Series BD, preferred shares Series BF, preferred shares Series BH, preferred shares Series BI, preferred shares Series BJ, preferred shares Series BK, preferred shares Series BM, preferred shares Series BO, subordinated debentures due on July 17, 2024, subordinated debentures due on September 29, 2026, subordinated debentures due on June 4, 2025, subordinated debentures due on January 20, 2026 and subordinated debentures due on January 27, 2026, would be converted into RBC 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 2,820 million RBC common shares, in aggregate, which would represent a dilution impact of 66.28% based on the number of RBC common shares outstanding as at January 31, 2019.

Global systemically important banks (G-SIBs) 12 assessment indicators (1)

The BCBS and FSB use 12 indicators in the assessment methodology for determining the systemic importance of large global banks. As noted previously, we are designated as a G-SIB. The following table provides the 12 indicators used in the G-SIB assessment:

	As at	
(Millions of Canadian dollars)	**October 31 2018**	October 31 2017
Cross-jurisdictional activity (2)		
Cross-jurisdictional claims	**$ 612,292**	$ 507,554
Cross-jurisdictional liabilities	**441,686**	337,153
Size (3)		
Total exposures as defined for use in the Basel III leverage ratio	**1,467,438**	1,331,641
Interconnectedness (4)		
Intra-financial system assets	**126,112**	144,688
Intra-financial system liabilities	**140,979**	130,724
Securities outstanding	**353,591**	351,781
Substitutability/financial institution infrastructure (5)		
Payment activity	**42,917,581**	37,964,746
Assets under custody	**4,262,294**	4,061,111
Underwritten transactions in debt and equity markets	**245,992**	235,431
Complexity (6)		
Notional amount of over-the-counter derivatives	**17,467,923**	12,937,404
Trading and investment securities (7) (8)	**55,855**	53,781
Level 3 assets	**2,549**	3,574

(1) The G-SIBs indicators are prepared based on the methodology prescribed in BCBS guidelines published in July 2013 and instructions provided by BCBS in January 2019. The indicators are based on regulatory scope of consolidation, which excludes RBC Insurance subsidiaries. For our 2018 standalone G-SIB disclosure, please refer to our Regulatory Disclosures at rbc.com/investorrelations/.
(2) Represents a bank's level of interaction outside its domestic jurisdiction.
(3) Represents the total on- and off- balance sheet exposures of the bank determined as per the Basel III leverage ratio rules before regulatory adjustments.
(4) Represents transactions with other financial institutions.
(5) Represents the extent to which the bank's services could be substituted by other institutions.
(6) Includes the level of complexity and volume of a bank's trading activities represented through derivatives, trading securities, investment securities and level 3 assets.
(7) Effective November 1, 2017, investment securities represent debt and equity securities at FVOCI and debt securities at amortized cost, net of the applicable allowance, under IFRS 9. Prior to November 1, 2017, investment securities represented available-for-sale securities and held-to-maturity securities, under IAS 39.
(8) Amounts have been revised from those previously presented.

Q4 2018 vs. Q4 2017

During 2018, notional amounts for over-the-counter derivatives increased mainly due to higher trading activity on interest rate swaps and forward rate agreements. Total exposures as defined for use in the Basel III leverage ratio increased due to client activity in our assets purchased under reverse repurchase agreements and securities borrowed, and volume growth in loans (net of allowance for loan losses). Other movements from the prior year primarily reflect normal changes in business activity and the impact of foreign currency translation.

Capital, liquidity, and other regulatory developments

Pillar 3 disclosure requirements

In December 2018, the BCBS issued its third and final phase of the Pillar 3 disclosure requirements, *Pillar 3 disclosure requirements – updated framework*. This phase incorporates revisions and additions to the Pillar 3 framework arising from the finalization of the Basel III reforms in December 2017, such as additional disclosure requirements comparing RWA as determined by banks' internal models against results based on the standardized approach, and new disclosure requirements on asset encumbrance and capital distribution constraints. The phase three requirements, together with the phase one and two disclosure requirements released in January 2015 and March 2017, respectively, complete the Pillar 3 framework.

The phase one requirements were effective for us in the fourth quarter of 2018. At this time, OSFI has not yet released the implementation date for the BCBS phase two and three disclosure requirements. We expect consultations to begin in mid-2019.

Minimum Capital Requirements for Market Risk

On January 19, 2019, the BCBS released its final standards on the *Minimum capital requirement for market risk*, which replaces an earlier version published in January 2016. The revisions refined the standardized approach framework, clarified the scope of exposures subject to market risk capital requirements, revised the assessment process for evaluating the adequacy of internal risk management models, and revised the requirements for identifying risk factors eligible for internal modelling. The BCBS expects member jurisdictions to implement these revisions by 2022. OSFI has not yet released their final guidance and expected implementation date.

Domestic Stability Buffer

In December 2018, OSFI announced that the DSB will be increased from 1.5% to 1.75% of total RWA, effective April 30, 2019. This change arose from OSFI's semi-annual review of the DSB, based on its ongoing monitoring of federally regulated financial institutions as well as system-wide and industry developments. We do not anticipate any challenges in meeting this requirement by the effective date.

For a discussion on risk factors resulting from these and other regulatory developments which may affect our business and financial results, refer to the Risk management – Top and emerging risks and Legal and regulatory environment risk sections of our 2018

Annual Report and the Economic, market and regulatory review and outlook section of this Q1 2019 Report to Shareholders. For further details on our framework and activities to manage risks, refer to the risk and Capital management sections of our 2018 Annual Report and the Risk management and Capital management sections of this Q1 2019 Report to Shareholders.

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 2018 Annual Consolidated Financial Statements and our Q1 2019 Condensed Financial Statements.

Changes in accounting policies and disclosures

Changes in accounting policies

During the first quarter, we adopted *IFRS 15 Revenue from Contracts with Customers* (IFRS 15). As permitted by the transition provisions of IFRS 15, we elected not to restate comparative period results; accordingly, all comparative period information prior to November 1, 2018 is presented in accordance with our previous accounting policies, as described in our 2018 Annual Report. As a result of the adoption of IFRS 15, we adjusted our opening retained earnings as at November 1, 2018 to align the recognition of certain fees with the transfer of the performance obligations. 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 2018 Annual Consolidated Financial Statements.

Controls and procedures

Disclosure controls and procedures

As of January 31, 2019, 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 January 31, 2019.

Internal control over financial reporting

No changes were made in our internal control over financial reporting during the quarter ended January 31, 2019 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 11 and 26 of our audited 2018 Annual Consolidated Financial Statements.

EDTF recommendations index

We aim to present transparent, high-quality risk disclosures by providing disclosures in our 2018 Annual Report, Q1 2019 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 Q1 2019 Report to Shareholders.

The following index summarizes our disclosure by EDTF recommendation:

			Location of disclosure		
Type of Risk	Recommendation	Disclosure	RTS page	Annual Report page	SFI page
General	1	Table of contents for EDTF risk disclosure	44	112	1
	2	Define risk terminology and measures		50, 52-55 213-214	–
	3	Top and emerging risks		50-51	–
	4	New regulatory ratios	38-39	91-93	–
Risk governance, risk management and business model	5	Risk management organization		50, 52-55	–
	6	Risk culture		52-55	–
	7	Risk in the context of our business activities		98	–
	8	Stress testing		53-54, 67	–
Capital adequacy and risk-weighted assets (RWA)	9	Minimum Basel III capital ratios and Domestic systemically important bank surcharge	39	91-93	–
	10	Composition of capital and reconciliation of the accounting balance sheet to the regulatory balance sheet		–	20-23
	11	Flow statement of the movements in regulatory capital		–	24
	12	Capital strategic planning		90-93	–
	13	RWA by business segments		–	26
	14	Analysis of capital requirement, and related measurement model information		56-59	25,*
	15	RWA credit risk and related risk measurements		–	*
	16	Movement of risk-weighted assets by risk type		–	26
	17	Basel back-testing		53, 56-57	40
Liquidity	18	Quantitative and qualitative analysis of our liquidity reserve	31-32	73-75, 79-80	–
Funding	19	Encumbered and unencumbered assets by balance sheet category, and contractual obligations for rating downgrades	32-33,35	75,78	–
	20	Maturity analysis of consolidated total assets, liabilities and off-balance sheet commitments analyzed by remaining contractual maturity at the balance sheet date	37-38	80-81	–
	21	Sources of funding and funding strategy	33-34	75-77	–
Market risk	22	Relationship between the market risk measures for trading and non-trading portfolios and the balance sheet	30-31	71-72	–
	23	Decomposition of market risk factors	27-30	67-70	–
	24	Market risk validation and back-testing		67	–
	25	Primary risk management techniques beyond reported risk measures and parameters		67-70	–
Credit risk	26	Bank's credit risk profile	21-27	56-66,	29-40,*
		Quantitative summary of aggregate credit risk exposures that reconciles to the balance sheet	58-61	159-165 106-111	*
	27	Policies for identifying impaired loans		57-59, 101-102, 123-126, 128-129	–
	28	Reconciliation of the opening and closing balances of impaired loans and impairment allowances during the year		–	31,36
	29	Quantification of gross notional exposure for OTC derivatives or exchange-traded derivatives		60	42
	30	Credit risk mitigation, including collateral held for all sources of credit risk		59	39
Other	31	Other risk types		83-90	–
	32	Publicly known risk events		86-87, 202-203	–

* These disclosure requirements are satisfied or partially satisfied by disclosures provided in our Pillar 3 Report for the quarter ended January 31, 2019 and for the year ended October 31, 2018.

Interim Condensed Consolidated Financial Statements (unaudited)

Interim Condensed Consolidated Balance Sheets (unaudited)

(Millions of Canadian dollars)	As at January 31 2019	As at October 31 2018
Assets		
Cash and due from banks	$ 40,033	$ 30,209
Interest-bearing deposits with banks	38,653	36,471
Securities		
Trading	138,173	128,258
Investment, net of applicable allowance (Note 4)	97,659	94,608
	235,832	222,866
Assets purchased under reverse repurchase agreements and securities borrowed	297,660	294,602
Loans (Note 5)		
Retail	401,767	399,452
Wholesale	191,114	180,278
	592,881	579,730
Allowance for loan losses (Note 5)	(3,061)	(2,912)
	589,820	576,818
Segregated fund net assets	1,443	1,368
Other		
Customers' liability under acceptances	16,750	15,641
Derivatives	84,816	94,039
Premises and equipment	2,918	2,832
Goodwill	11,149	11,137
Other intangibles	4,711	4,687
Other assets	42,422	44,064
	162,766	172,400
Total assets	$ 1,366,207	$ 1,334,734
Liabilities and equity		
Deposits (Note 6)		
Personal	$ 280,171	$ 270,154
Business and government	540,234	534,371
Bank	32,159	32,521
	852,564	837,046
Segregated fund net liabilities	1,443	1,368
Other		
Acceptances	16,781	15,662
Obligations related to securities sold short	33,242	32,247
Obligations related to assets sold under repurchase agreements and securities loaned	224,529	206,814
Derivatives	81,766	90,238
Insurance claims and policy benefit liabilities	10,512	10,000
Other liabilities	55,465	52,273
	422,295	407,234
Subordinated debentures	9,255	9,131
Total liabilities	1,285,557	1,254,779
Equity attributable to shareholders		
Preferred shares (Note 9)	6,406	6,309
Common shares (Note 9)	17,565	17,617
Retained earnings	52,208	51,112
Other components of equity	4,374	4,823
	80,553	79,861
Non-controlling interests	97	94
Total equity	80,650	79,955
Total liabilities and equity	$ 1,366,207	$ 1,334,734

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

Interim Condensed Consolidated Statements of Income (unaudited)

	For the three months ended	
(Millions of Canadian dollars, except per share amounts)	January 31 2019	January 31 2018
Interest and dividend income (Note 3)		
Loans	$ 6,160	$ 4,973
Securities	1,696	1,354
Assets purchased under reverse repurchase agreements and securities borrowed	2,148	1,108
Deposits and other	145	105
	10,149	7,540
Interest expense (Note 3)		
Deposits and other	3,225	1,987
Other liabilities	1,948	1,034
Subordinated debentures	92	74
	5,265	3,095
Net interest income	4,884	4,445
Non-interest income		
Insurance premiums, investment and fee income	1,579	1,144
Trading revenue	358	318
Investment management and custodial fees	1,450	1,325
Mutual fund revenue	873	885
Securities brokerage commissions	342	355
Service charges	468	440
Underwriting and other advisory fees	345	541
Foreign exchange revenue, other than trading	249	281
Card service revenue	282	257
Credit fees	315	328
Net gains on investment securities (Note 4)	46	39
Share of profit in joint ventures and associates	15	25
Other	383	445
	6,705	6,383
Total revenue	11,589	10,828
Provision for credit losses (Notes 4 and 5)	514	334
Insurance policyholder benefits, claims and acquisition expense	1,225	836
Non-interest expense		
Human resources (Note 7)	3,643	3,502
Equipment	431	372
Occupancy	397	379
Communications	240	224
Professional fees	305	281
Amortization of other intangibles	290	261
Other	606	592
	5,912	5,611
Income before income taxes	3,938	4,047
Income taxes	766	1,035
Net income	$ 3,172	$ 3,012
Net income attributable to:		
Shareholders	$ 3,170	$ 3,001
Non-controlling interests	2	11
	$ 3,172	$ 3,012
Basic earnings per share (in dollars) (Note 10)	$ 2.15	$ 2.02
Diluted earnings per share (in dollars) (Note 10)	2.15	2.01
Dividends per common share (in dollars)	0.98	0.91

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 January 31 2019	January 31 2018
Net income	$ 3,172	$ 3,012
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	(1)	(24)
Provision for credit losses recognized in income	(1)	15
Reclassification of net losses (gains) on debt securities and loans at fair value through other comprehensive income to income	(29)	(28)
	(31)	(37)
Foreign currency translation adjustments		
Unrealized foreign currency translation gains (losses)	35	(2,006)
Net foreign currency translation gains (losses) from hedging activities	(66)	658
Reclassification of losses (gains) on foreign currency translation to income	2	–
Reclassification of losses (gains) on net investment hedging activities to income	2	–
	(27)	(1,348)
Net change in cash flow hedges		
Net gains (losses) on derivatives designated as cash flow hedges	(316)	424
Reclassification of losses (gains) on derivatives designated as cash flow hedges to income	(74)	(153)
	(390)	271
Items that will not be reclassified subsequently to income:		
Remeasurements of employee benefit plans (Note 7)	(394)	49
Net fair value change due to credit risk on financial liabilities designated as at fair value through profit or loss	163	(18)
Net gains (losses) on equity securities designated at fair value through other comprehensive income	7	(2)
	(224)	29
Total other comprehensive income (loss), net of taxes	(672)	(1,085)
Total comprehensive income (loss)	$ 2,500	$ 1,927
Total comprehensive income attributable to:		
Shareholders	$ 2,497	$ 1,919
Non-controlling interests	3	8
	$ 2,500	$ 1,927

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 January 31 2019	January 31 2018
Income taxes on other comprehensive income		
Net unrealized gains (losses) on debt securities and loans at fair value through other comprehensive income	$ (4)	$ 42
Provision for credit losses recognized in income	–	(4)
Reclassification of net losses (gains) on debt securities and loans at fair value through other comprehensive income to income	(17)	(15)
Unrealized foreign currency translation gains (losses)	1	(5)
Net foreign currency translation gains (losses) from hedging activities	(24)	219
Reclassification of losses (gains) on net investment hedging activities to income	1	–
Net gains (losses) on derivatives designated as cash flow hedges	(113)	183
Reclassification of losses (gains) on derivatives designated as cash flow hedges to income	(27)	(86)
Remeasurements of employee benefit plans	(125)	20
Net fair value change due to credit risk on financial liabilities designated as at fair value through profit or loss	59	(7)
Net gains (losses) on equity securities designated at fair value through other comprehensive income	(1)	(1)
Total income tax expenses (recoveries)	$ (250)	$ 346

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

Interim Condensed Consolidated Statements of Changes in Equity (unaudited)

(Millions of Canadian dollars)	Preferred shares	Common shares	Treasury shares – preferred	Treasury shares – common	Retained earnings	Available-for-sale securities	FVOCI securities and loans	Foreign currency translation	Cash flow hedges	Total other components of equity	Equity attributable to shareholders	Non-controlling interests	Total equity
	For the three months ended January 31, 2019												
						Other components of equity							
Balance at beginning of period	$ 6,306	$ 17,635	$ 3	$ (18)	$ 51,112		$ (12)	$ 4,147	$ 688	$ 4,823	$ 79,861	$ 94	$ 79,955
Transition adjustment (Note 2)	–	–	–	–	(70)		–	–	–	–	(70)	–	(70)
Adjusted balance at beginning of period	$ 6,306	$ 17,635	$ 3	$ (18)	$ 51,042		$ (12)	$ 4,147	$ 688	$ 4,823	$ 79,791	$ 94	$ 79,885
Changes in equity													
Issues of share capital	350	11	–	–	–		–	–	–	–	361	–	361
Common shares purchased for cancellation	–	(45)	–	–	(303)		–	–	–	–	(348)	–	(348)
Redemption of preferred shares	(250)	–	–	–	–			–	–	–	(250)	–	(250)
Sales of treasury shares	–	–	82	1,529	–		–	–	–	–	1,611	–	1,611
Purchases of treasury shares	–	–	(85)	(1,547)	–		–	–	–	–	(1,632)	–	(1,632)
Share-based compensation awards	–	–	–	–	2		–	–	–	–	2	–	2
Dividends on common shares	–	–	–	–	(1,407)		–	–	–	–	(1,407)	–	(1,407)
Dividends on preferred shares and other	–	–	–	–	(74)		–	–	–	–	(74)	–	(74)
Other	–	–	–	–	2		–	–	–	–	2	–	2
Net income	–	–	–	–	3,170		–	–	–	–	3,170	2	3,172
Total other comprehensive income (loss), net of taxes	–	–	–	–	(224)		(31)	(28)	(390)	(449)	(673)	1	(672)
Balance at end of period	$ 6,406	$ 17,601	$ –	$ (36)	$ 52,208		$ (43)	$ 4,119	$ 298	$ 4,374	$ 80,553	$ 97	$ 80,650

(Millions of Canadian dollars)	Preferred shares	Common shares	Treasury shares – preferred	Treasury shares – common	Retained earnings	Available-for-sale securities	FVOCI securities and loans	Foreign currency translation	Cash flow hedges	Total other components of equity	Equity attributable to shareholders	Non-controlling interests	Total equity
	For the three months ended January 31, 2018												
						Other components of equity							
Balance at beginning of period	$ 6,413	$ 17,730	$ –	$ (27)	$ 45,359	$ 378		$ 3,545	$ 431	$ 4,354	$ 73,829	$ 599	$ 74,428
Transition adjustment	–	–	–	–	(558)	(378)	$ 299	–	–	(79)	(637)	–	(637)
Adjusted balance at beginning of period	$ 6,413	$ 17,730	$ –	$ (27)	$ 44,801	$ –	$ 299	$ 3,545	$ 431	$ 4,275	$ 73,192	$ 599	$ 73,791
Changes in equity													
Issues of share capital	–	30	–	–	–		–	–	–	–	30	–	30
Common shares purchased for cancellation	–	(113)	–	–	(810)		–	–	–	–	(923)	–	(923)
Redemption of preferred shares	(107)	–	–	–	2		–	–	–	–	(105)	–	(105)
Sales of treasury shares	–	–	69	1,425	–		–	–	–	–	1,494	–	1,494
Purchases of treasury shares	–	–	(69)	(1,405)	–		–	–	–	–	(1,474)	–	(1,474)
Share-based compensation awards	–	–	–	–	(3)		–	–	–	–	(3)	–	(3)
Dividends on common shares	–	–	–	–	(1,319)		–	–	–	–	(1,319)	–	(1,319)
Dividends on preferred shares and other	–	–	–	–	(72)		–	–	–	–	(72)	(18)	(90)
Other	–	–	–	–	135		(138)	–	–	(138)	(3)	(1)	(4)
Net income	–	–	–	–	3,001		–	–	–	–	3,001	11	3,012
Total other comprehensive income (loss), net of taxes	–	–	–	–	29		(37)	(1,345)	271	(1,111)	(1,082)	(3)	(1,085)
Balance at end of period	$ 6,306	$ 17,647	$ –	$ (7)	$ 45,764		$ 124	$ 2,200	$ 702	$ 3,026	$ 72,736	$ 588	$ 73,324

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 January 31 2019	January 31 2018
Cash flows from operating activities		
Net income	$ 3,172	$ 3,012
Adjustments for non-cash items and others		
Provision for credit losses	514	334
Depreciation	150	135
Deferred income taxes	(162)	271
Amortization and impairment of other intangibles	293	261
Net changes in investments in joint ventures and associates	(15)	(22)
Losses (Gains) on investment securities	(49)	(43)
Adjustments for net changes in operating assets and liabilities		
Insurance claims and policy benefit liabilities	512	195
Net change in accrued interest receivable and payable	86	(132)
Current income taxes	(159)	(1,970)
Derivative assets	9,223	(10,489)
Derivative liabilities	(8,472)	12,092
Trading securities	(9,915)	1,194
Loans, net of securitizations	(13,151)	(3,579)
Assets purchased under reverse repurchase agreements and securities borrowed	(3,058)	(38,789)
Deposits, net of securitizations	15,518	10,414
Obligations related to assets sold under repurchase agreements and securities loaned	17,715	40,235
Obligations related to securities sold short	995	396
Brokers and dealers receivable and payable	(478)	(166)
Other	(1,492)	1,225
Net cash from (used in) operating activities	11,227	14,574
Cash flows from investing activities		
Change in interest-bearing deposits with banks	(2,182)	(4,607)
Proceeds from sale of investment securities	3,285	5,217
Proceeds from maturity of investment securities	15,019	7,132
Purchases of investment securities	(20,668)	(13,342)
Net acquisitions of premises and equipment and other intangibles	(561)	(357)
Net cash from (used in) investing activities	(5,107)	(5,957)
Cash flows from financing activities		
Issue of common shares	9	23
Common shares purchased for cancellation	(348)	(923)
Issue of preferred shares	350	–
Redemption of preferred shares	(250)	(105)
Sales of treasury shares	1,611	1,494
Purchases of treasury shares	(1,632)	(1,474)
Dividends paid	(1,483)	(1,396)
Dividends/distributions paid to non-controlling interests	–	(18)
Change in short-term borrowings of subsidiaries	4,860	(1)
Net cash from (used in) financing activities	3,117	(2,400)
Effect of exchange rate changes on cash and due from banks	587	(136)
Net change in cash and due from banks	9,824	6,081
Cash and due from banks at beginning of period (1)	30,209	28,407
Cash and due from banks at end of period (1)	$ 40,033	$ 34,488
Cash flows from operating activities include:		
Amount of interest paid	$ 4,748	$ 3,001
Amount of interest received	9,660	7,255
Amount of dividends received	493	410
Amount of income taxes paid	791	3,118

(1) We are required to maintain balances with central banks and other regulatory authorities. The total balances were $2.3 billion as at January 31, 2019 (October 31, 2018 – $2.4 billion; January 31, 2018 – $2.5 billion; October 31, 2017 – $2.3 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 2018 Annual Consolidated Financial Statements and the accompanying notes included on pages 113 to 211 in our 2018 Annual Report. Tabular information is stated in millions of Canadian dollars, except per share amounts and percentages. On February 21, 2019, 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 2018 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 2018 Annual Consolidated Financial Statements.

Changes in accounting policies

During the first quarter, we adopted IFRS 15 *Revenue from Contracts with Customers* (IFRS 15). As permitted by the transition provisions of IFRS 15, we elected not to restate comparative period results; accordingly, all comparative period information is presented in accordance with our previous accounting policies, as described in our 2018 Annual Report. As a result of the adoption of IFRS 15, we reduced our opening retained earnings by $70 million, on an after tax basis as at November 1, 2018 (the date of initial application), to align the recognition of certain fees with the transfer of the performance obligations.

Commissions and fees

Commission and fees primarily relate to Investment management and custodial fees, Mutual fund revenue, Securities brokerage commissions, Services charges, Underwriting and other advisory fees, Card service revenue and Credit fees, and are recognized based on the applicable service contracts with customers.

Investment management and custodial fees and Mutual fund revenue are generally calculated as a percentage of daily or period-end net asset values based on the terms of the contract with customers and are received monthly, quarterly, semi-annually or annually, depending on the terms of the contract. Investment management and custodial fees are generally derived from assets under management (AUM) when our clients solicit the investment capabilities of an investment manager or from assets under administration (AUA) where the investment strategy is directed by the client or a designated third party manager. Mutual fund revenue is derived from the daily net asset value (NAV) of the mutual funds. Investment management and custodial fees and Mutual fund revenue are recognized over time when the service is provided to the customer provided that it is highly probable that a significant reversal in the amount of revenue recognized will not occur.

Commissions earned on Securities brokerage services and Service charges that are related to the provision of specific transaction type services are recognized when the service is fulfilled. Where services are provided over time, revenue is recognized as the services are provided.

Underwriting and other advisory fees primarily relate to underwriting of new issuances of debt or equity and various advisory services. Underwriting fees are generally expressed as a percentage of the funds raised through issuance and are recognized when the service has been completed. Advisory fees vary depending on the scope and type of engagement and can be fixed in nature or contingent on a future event. Advisory fees are recognized over the period in which the service is provided and are recognized only to the extent that it is highly probable that a significant reversal in the amount of revenue will not occur.

Card service revenue primarily includes interchange revenue and annual card fees. Interchange revenue is calculated as a fixed percentage of the transaction amount and recognized when the card transaction is settled. Annual card fees are fixed fees and are recognized over a twelve month period.

Credit fees are primarily earned for arranging syndicated loans and making credit available on undrawn facilities. The timing of the recognition of credit fees varies based on the nature of the services provided.

When service fees and other costs are incurred in relation to commissions and fees earned, we record these costs on a gross basis in either Non-interest expense – Other or Non-interest expense – Human resources based on our assessment of whether we have primary responsibility to fulfill the contract with the customer and have discretion in establishing the price for the commissions and fees earned, which may require judgment.

Note 3 Fair value of financial instruments

Carrying value and fair value of financial instruments

The following tables provide a comparison of the carrying and fair values for each classification of financial instruments. Embedded derivatives are presented on a combined basis with the host contracts. Refer to Note 2 and Note 3 of our audited 2018 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.

	As at January 31, 2019							
	Carrying value and fair value				Carrying value	Fair value		
(Millions of Canadian dollars)	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	$ –	$ 22,856	$ –	$ –	$ 15,797	$ 15,797	$ 38,653	$ 38,653
Securities								
Trading	130,542	7,631	–	–	–	–	138,173	138,173
Investment, net of applicable allowance	–	–	51,366	529	45,764	45,546	97,659	97,441
	130,542	7,631	51,366	529	45,764	45,546	235,832	235,614
Assets purchased under reverse repurchase agreements and securities borrowed	223,953	–	–	–	73,707	73,707	297,660	297,660
Loans, net of applicable allowance								
Retail	118	194	95	–	399,325	397,339	399,732	397,746
Wholesale	6,671	1,643	463	–	181,311	179,595	190,088	188,372
	6,789	1,837	558	–	580,636	576,934	589,820	586,118
Other								
Derivatives	84,816	–	–	–	–	–	84,816	84,816
Other assets (1)	1,350	–	–	–	45,372	45,372	46,722	46,722
Financial liabilities								
Deposits								
Personal	$ 146	$ 15,088			$ 264,937	$ 264,491	$ 280,171	$ 279,725
Business and government (2)	12	110,561			429,661	430,314	540,234	540,887
Bank (3)	–	5,942			26,217	26,256	32,159	32,198
	158	131,591			720,815	721,061	852,564	852,810
Other								
Obligations related to securities sold short	33,242	–			–	–	33,242	33,242
Obligations related to assets sold under repurchase agreements and securities loaned	–	218,297			6,232	6,234	224,529	224,531
Derivatives	81,766	–			–	–	81,766	81,766
Other liabilities (4)	(1,113)	23			60,616	60,578	59,526	59,488
Subordinated debentures	–	–			9,255	9,416	9,255	9,416

Note 3 Fair value of financial instruments (continued)

	As at October 31, 2018							
	Carrying value and fair value				Carrying value	Fair value		
(Millions of Canadian dollars)	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	$ –	$ 20,274	$ –	$ –	$ 16,197	$ 16,197	$ 36,471	$ 36,471
Securities								
Trading	121,031	7,227	–	–	–	–	128,258	128,258
Investment, net of applicable allowance	–	–	48,093	406	46,109	45,367	94,608	93,866
	121,031	7,227	48,093	406	46,109	45,367	222,866	222,124
Assets purchased under reverse repurchase agreements and securities borrowed	219,108	–	–	–	75,494	75,490	294,602	294,598
Loans, net of applicable allowance								
Retail	69	190	94	–	397,102	394,051	397,455	394,404
Wholesale	7,129	1,540	458	–	170,236	168,087	179,363	177,214
	7,198	1,730	552	–	567,338	562,138	576,818	571,618
Other								
Derivatives	94,039	–	–	–	–	–	94,039	94,039
Other assets (1)	1,373	–	–	–	46,205	46,205	47,578	47,578
Financial liabilities								
Deposits								
Personal	$ 150	$ 14,602			$ 255,402	$ 255,115	$ 270,154	$ 269,867
Business and government (2)	(11)	103,446			430,936	431,158	534,371	534,593
Bank (3)	–	7,072			25,449	25,462	32,521	32,534
	139	125,120			711,787	711,735	837,046	836,994
Other								
Obligations related to securities sold short	32,247	–			–	–	32,247	32,247
Obligations related to assets sold under repurchase agreements and securities loaned	–	201,839			4,975	4,976	206,814	206,815
Derivatives	90,238	–			–	–	90,238	90,238
Other liabilities (4)	(1,434)	18			54,917	54,880	53,501	53,464
Subordinated debentures	–	–			9,131	9,319	9,131	9,319

(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.

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

	As at											
	January 31, 2019						October 31, 2018					
	Fair value measurements using			Total gross fair value	Netting adjustments	Assets/ liabilities at fair value	Fair value measurements using			Total gross fair value	Netting adjustments	Assets/ liabilities at fair value
(Millions of Canadian dollars)	Level 1	Level 2	Level 3				Level 1	Level 2	Level 3			
Financial assets												
Interest-bearing deposits with banks	$ –	$ 22,856	$ –	$ 22,856	$	$ 22,856	$ –	$ 20,274	$ –	$ 20,274	$	$ 20,274
Securities												
Trading												
Issued or guaranteed												
Canadian government debt (1)												
Federal	11,168	5,725	–	16,893		16,893	8,342	6,231	–	14,573		14,573
Provincial and municipal	–	11,679	–	11,679		11,679	–	11,350	–	11,350		11,350
U.S. state, municipal and agencies debt (1)	979	43,329	65	44,373		44,373	2,068	31,030	66	33,164		33,164
Other OECD government debt (2)	2,941	5,917	–	8,858		8,858	1,151	9,018	–	10,169		10,169
Mortgage-backed securities (1)	–	965	–	965		965	–	1,001	–	1,001		1,001
Asset-backed securities												
Non-CDO securities (3)	–	797	9	806		806	–	1,023	110	1,133		1,133
Corporate debt and other debt	–	20,900	22	20,922		20,922	2	22,303	21	22,326		22,326
Equities	30,316	2,285	1,076	33,677		33,677	30,847	2,547	1,148	34,542		34,542
	45,404	91,597	1,172	138,173		138,173	42,410	84,503	1,345	128,258		128,258
Investment												
Issued or guaranteed												
Canadian government debt (1)												
Federal	–	527	–	527		527	–	238	–	238		238
Provincial and municipal	–	2,281	–	2,281		2,281	–	1,554	–	1,554		1,554
U.S. state, municipal and agencies debt (1)	34	18,142	–	18,176		18,176	–	18,136	–	18,136		18,136
Other OECD government debt	–	1,964	–	1,964		1,964	–	1,470	–	1,470		1,470
Mortgage-backed securities (1)	–	2,226	27	2,253		2,253	–	2,174	–	2,174		2,174
Asset-backed securities												
CDO	–	6,424	–	6,424		6,424	–	6,239	–	6,239		6,239
Non-CDO securities	–	891	–	891		891	–	863	–	863		863
Corporate debt and other debt	–	18,715	135	18,850		18,850	–	17,227	192	17,419		17,419
Equities	41	217	247	505		505	42	103	237	382		382
Loan substitute securities	–	24	–	24		24	–	24	–	24		24
	75	51,411	409	51,895		51,895	42	48,028	429	48,499		48,499
Assets purchased under reverse repurchase agreements and securities borrowed	–	223,953	–	223,953		223,953	–	219,108	–	219,108		219,108
Loans	–	8,358	826	9,184		9,184	–	8,929	551	9,480		9,480
Other												
Derivatives												
Interest rate contracts	–	35,044	209	35,253		35,253	1	33,862	222	34,085		34,085
Foreign exchange contracts	–	33,819	42	33,861		33,861	–	43,253	53	43,306		43,306
Credit derivatives	–	134	–	134		134	–	38	–	38		38
Other contracts	4,720	11,656	159	16,535		16,535	5,868	11,654	296	17,818		17,818
Valuation adjustments	–	(441)	10	(431)		(431)	–	(631)	6	(625)		(625)
Total gross derivatives	4,720	80,212	420	85,352		85,352	5,869	88,176	577	94,622		94,622
Netting adjustments					(536)	(536)					(583)	(583)
Total derivatives						84,816						94,039
Other assets	1,105	184	61	1,350		1,350	1,020	288	65	1,373		1,373
	$ 51,304	$ 478,571	$ 2,888	$ 532,763	$ (536)	$ 532,227	$ 49,341	$ 469,306	$ 2,967	$ 521,614	$ (583)	$ 521,031
Financial Liabilities												
Deposits												
Personal	$ –	$ 15,143	$ 91	$ 15,234	$	$ 15,234	$ –	$ 14,362	$ 390	$ 14,752	$	$ 14,752
Business and government	–	110,573	–	110,573		110,573	–	103,440	(5)	103,435		103,435
Bank	–	5,942	–	5,942		5,942	–	7,072	–	7,072		7,072
Other												
Obligations related to securities sold short	18,124	15,118	–	33,242		33,242	17,732	14,515	–	32,247		32,247
Obligations related to assets sold under repurchase agreements and securities loaned	–	218,297	–	218,297		218,297	–	201,839	–	201,839		201,839
Derivatives												
Interest rate contracts	–	29,658	759	30,417		30,417	–	29,620	726	30,346		30,346
Foreign exchange contracts	–	34,285	30	34,315		34,315	–	41,836	32	41,868		41,868
Credit derivatives	–	208	–	208		208	–	94	–	94		94
Other contracts	3,135	13,674	261	17,070		17,070	4,369	13,730	380	18,479		18,479
Valuation adjustments	–	295	(3)	292		292	–	29	5	34		34
Total gross derivatives	3,135	78,120	1,047	82,302		82,302	4,369	85,309	1,143	90,821		90,821
Netting adjustments					(536)	(536)					(583)	(583)
Total derivatives						81,766						90,238
Other liabilities	262	(1,404)	52	(1,090)		(1,090)	170	(1,654)	68	(1,416)		(1,416)
	$ 21,521	$ 441,789	$ 1,190	$ 464,500	$ (536)	$ 463,964	$ 22,271	$ 424,883	$ 1,596	$ 448,750	$ (583)	$ 448,167

(1) As at January 31, 2019, residential and commercial mortgage-backed securities (MBS) included in all fair value levels of trading securities were $28,175 million and $nil (October 31, 2018 – $16,776 million and $nil), respectively, and in all fair value levels of Investment securities were $4,961 million and $1,450 million (October 31, 2018 – $4,713 million and $1,348 million), respectively.

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

(3) CDO stands for collateralized debt obligations.

Note 3 Fair value of financial instruments (continued)

Quantitative information about 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 January 31, 2019, 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 January 31, 2019, 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 2018 Annual Consolidated Financial Statements.

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

	For the three months ended January 31, 2019								
(Millions of Canadian dollars)	Fair value at beginning of period	Total realized/ unrealized gains (losses) included in earnings	Total unrealized gains (losses) included in OCI (1)	Purchases of assets/ issuances of liabilities	Sales of assets/ settlements of liabilities and other (2)	Transfers into Level 3	Transfers out of Level 3	Fair value at end of period	Changes in unrealized gains (losses) included in earnings for assets and liabilities for positions still held
Assets									
Securities									
Trading									
Issued or guaranteed									
U.S. state, municipal and agencies debt	$ 66	$ (1)	$ –	$ –	$ –	$ –	$ –	$ 65	$ –
Asset-backed securities									
Non-CDO securities	110	15	–	–	(116)	–	–	9	1
Corporate debt and other debt	21	1	–	–	–	–	–	22	–
Equities	1,148	(18)	–	80	(143)	9	–	1,076	(5)
	1,345	(3)	–	80	(259)	9	–	1,172	(4)
Investment									
Mortgage-backed securities	–	–	–	27	–	–	–	27	n.a.
Corporate debt and other debt	192	(3)	2	–	(56)	–	–	135	n.a.
Equities	237	–	10	–	–	–	–	247	n.a.
Loan substitute securities	–	–	–	–	–	–	–	–	n.a.
	429	(3)	12	27	(56)	–	–	409	n.a.
Loans	551	17	1	264	(2)	–	(5)	826	16
Other									
Net derivative balances (3)									
Interest rate contracts	(504)	(68)	–	–	40	2	(20)	(550)	(6)
Foreign exchange contracts	21	(7)	6	2	–	(1)	(9)	12	(1)
Credit derivatives	–	–	–	–	–	–	–	–	–
Other contracts	(84)	45	–	(9)	(23)	(17)	(14)	(102)	60
Valuation adjustments	1	–	–	–	12	–	–	13	–
Other assets	65	–	–	–	(4)	–	–	61	–
	$ 1,824	$ (19)	$ 19	$ 364	$ (292)	$ (7)	$ (48)	$ 1,841	$ 65
Liabilities									
Deposits									
Personal	$ (390)	$ (30)	$ (1)	$ (9)	$ 5	$ (18)	$ 352	$ (91)	$ 2
Business and government	5	–	–	–	–	–	(5)	–	–
Other									
Other liabilities	(68)	–	–	–	16	–	–	(52)	1
	$ (453)	$ (30)	$ (1)	$ (9)	$ 21	$ (18)	$ 347	$ (143)	$ 3

(Millions of Canadian dollars)	Fair value at beginning of period	Total realized/ unrealized gains (losses) included in earnings	Total unrealized gains (losses) included in OCI (1)	Purchases of assets/ issuances of liabilities	Sales of assets/ settlements of liabilities and other (2)	Transfers into Level 3	Transfers out of Level 3	Fair value at end of period	Changes in unrealized gains (losses) included in earnings for assets and liabilities for positions still held
	For the three months ended January 31, 2018								
Assets									
Securities									
Trading									
Issued or guaranteed									
U.S. state, municipal and agencies debt	$ 508	$ 4	$ (13)	$ –	$ (312)	$ –	$ –	$ 187	$ (5)
Asset-backed securities									
Non-CDO securities	196	12	(6)	–	(6)	–	–	196	10
Corporate debt and other debt	30	(1)	–	–	–	–	–	29	(1)
Equities	923	(68)	(21)	179	(40)	4	(2)	975	(43)
	1,657	(53)	(40)	179	(358)	4	(2)	1,387	(39)
Investment									
Mortgage-backed securities	–	–	–	–	–	–	–	–	n.a.
Corporate debt and other debt	29	(5)	4	–	–	–	–	28	n.a.
Equities	217	–	26	–	3	–	–	246	n.a.
Loan substitute securities	3	–	–	–	–	–	–	3	n.a.
	249	(5)	30	–	3	–	–	277	n.a.
Loans	477	(1)	(1)	50	(4)	–	–	521	(1)
Other									
Net derivative balances (3)									
Interest rate contracts	(455)	45	–	27	1	–	(130)	(512)	46
Foreign exchange contracts	21	6	1	–	4	1	–	33	4
Credit derivatives	–	–	–	–	–	–	–	–	–
Other contracts	(181)	53	6	(30)	(2)	(34)	31	(157)	24
Valuation adjustments	(16)	–	–	–	5	–	–	(11)	–
Other assets	–	–	–	–	–	–	–	–	–
	$ 1,752	$ 45	$ (4)	$ 226	$ (351)	$ (29)	$ (101)	$ 1,538	$ 34
Liabilities									
Deposits									
Personal	$ (465)	$ (31)	$ 4	$ (149)	$ 22	$ (52)	$ 117	$ (554)	$ (24)
Business and government	–	–	–	–	–	–	–	–	–
Other									
Other liabilities	(24)	(1)	1	(5)	1	–	–	(28)	–
	$ (489)	$ (32)	$ 5	$ (154)	$ 23	$ (52)	$ 117	$ (582)	$ (24)

(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 $11 million for the three months ended January 31, 2019 (January 31, 2018 – gains of $32 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 January 31, 2019 included derivative assets of $420 million (January 31, 2018 – $485 million) and derivative liabilities of $1,047 million (January 31, 2018 – $1,132 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 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 January 31, 2019, transfers out of Level 1 to Level 2 included Trading U.S. state, municipal and agencies debt and Obligations related to securities sold short of $497 million and $172 million, respectively.

During the three months ended January 31, 2019 there were no 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 January 31, 2019, significant transfers out of Level 3 to Level 2 include:

- $8 million of OTC equity options in Other contracts, comprised of $203 million of derivative related assets and $195 million of derivative related liabilities, due to a change in the market observability of inputs.
- $352 million of Personal deposits, due to changes in the significance of the unobservable inputs and market observability of inputs used to calculate fair values.

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 January 31 2019	January 31 2018
Interest income and dividend income (1), (2)		
Financial instruments measured at fair value through profit or loss	$ 2,794	$ 1,644
Financial instruments measured at fair value through other comprehensive income	272	152
Financial instruments measured at amortized cost	7,083	5,744
	10,149	7,540
Interest expense (1)		
Financial instruments measured at fair value through profit or loss	$ 2,730	$ 1,410
Financial instruments measured at amortized cost	2,535	1,685
	5,265	3,095
Net interest income	$ 4,884	$ 4,445

(1) Excludes the following amounts related to our insurance operations and included in Insurance premiums, investment and fee income in the Consolidated Statements of Income: Interest income of $129 million (January 31, 2018 – $124 million), and Interest expense of $1 million (January 31, 2018 – $2 million).

(2) Includes dividend income for the three months ended January 31, 2019 of $437 million (January 31, 2018 – $367 million), which is presented in Interest and dividend income in the Condensed Consolidated Statements of Income.

Note 4 Securities

Unrealized gains and losses on securities at FVOCI (1) (2)

	As at							
	January 31, 2019				October 31, 2018			
(Millions of Canadian dollars)	Cost/ Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	Cost/ Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Issued or guaranteed								
Canadian government debt								
Federal (3)	$ 529	$ –	$ (2)	$ 527	$ 244	$ –	$ (6)	$ 238
Provincial and municipal	2,282	10	(11)	2,281	1,578	2	(26)	1,554
U.S. state, municipal and agencies debt (3)	18,086	180	(90)	18,176	18,000	285	(149)	18,136
Other OECD government debt	1,964	1	(1)	1,964	1,469	2	(1)	1,470
Mortgage-backed securities (3)	2,275	1	(23)	2,253	2,176	1	(3)	2,174
Asset-backed securities								
CDO	6,468	1	(45)	6,424	6,248	1	(10)	6,239
Non-CDO securities	887	5	(1)	891	856	9	(2)	863
Corporate debt and other debt	18,856	26	(32)	18,850	17,439	22	(42)	17,419
Equities	312	195	(2)	505	197	186	(1)	382
Loan substitute securities	25	–	(1)	24	25	–	(1)	24
	$ 51,684	$ 419	$ (208)	$ 51,895	$ 48,232	$ 508	$ (241)	$ 48,499

(1) Excludes $45,764 million of held-to-collect securities as at January 31, 2019 that are carried at amortized cost, net of allowance for credit losses (October 31, 2018 – $46,109 million).

(2) Gross unrealized gains and losses includes $9 million of allowance for credit losses on debt securities at FVOCI as at January 31, 2019 (October 31, 2018 – $11 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 $1,467 million, $nil, $17 million and $1,450 million, respectively as at January 31, 2019 (October 31, 2018 – $1,442 million, $nil, $6 million and $1,436 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:

- Transfers between stages, which are presumed to occur before any corresponding remeasurement of the allowance.
- Purchases and originations, which reflect the allowance related to assets newly recognized during the period, including those assets that were derecognized following a modification of terms.
- Derecognitions 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.
- Remeasurements, 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)	January 31, 2019 Performing Stage 1	January 31, 2019 Performing Stage 2	January 31, 2019 Impaired Stage 3 (2)	January 31, 2019 Total	January 31, 2018 Performing Stage 1	January 31, 2018 Performing Stage 2	January 31, 2018 Impaired Stage 3	January 31, 2018 Total
Balance at beginning of period	$ 4	$ 7	$ –	$ 11	$ 3	$ 22	$ –	$ 25
Provision for credit losses								
Transfers in (out) to Stage 1	–	–	–	–	–	–	–	–
Transfers in (out) to Stage 2	–	–	–	–	–	–	–	–
Purchases and originations	2	–	–	2	34	–	–	34
Derecognitions and maturities	(1)	(7)	–	(8)	–	(17)	–	(17)
Remeasurements	1	–	3	4	–	2	–	2
Exchange rate and other	–	–	–	–	–	(2)	–	(2)
Balance at end of period	$ 6	$ –	$ 3	$ 9	$ 37	$ 5	$ –	$ 42

For the three months ended.

(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) Stage 3 includes $3 million of allowance for credit losses on purchased credit impaired securities.

Allowance for credit losses – securities at amortized cost

(Millions of Canadian dollars)	January 31, 2019 Performing Stage 1	January 31, 2019 Performing Stage 2	January 31, 2019 Impaired Stage 3	January 31, 2019 Total	January 31, 2018 Performing Stage 1	January 31, 2018 Performing Stage 2	January 31, 2018 Impaired Stage 3	January 31, 2018 Total
Balance at beginning of period	$ 6	$ 32	$ –	$ 38	$ 9	$ 45	$ –	$ 54
Provision for credit losses								
Transfers in (out) to Stage 1	–	–	–	–	3	(3)	–	–
Transfers in (out) to Stage 2	–	–	–	–	(7)	7	–	–
Purchases and originations	1	–	–	1	1	–	–	1
Derecognitions and maturities	–	–	–	–	(1)	(9)	–	(10)
Remeasurements	(1)	(2)	–	(3)	(1)	(2)	–	(3)
Exchange rate and other	–	–	–	–	–	(3)	–	(3)
Balance at end of period	$ 6	$ 30	$ –	$ 36	$ 4	$ 35	$ –	$ 39

For the three months ended.

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 as at the reporting date as outlined in the internal ratings maps in the Credit risk section of our 2018 Annual Report.

(Millions of Canadian dollars)	January 31, 2019 Performing Stage 1	January 31, 2019 Performing Stage 2	January 31, 2019 Impaired Stage 3 (1)	January 31, 2019 Total	October 31, 2018 Performing Stage 1	October 31, 2018 Performing Stage 2	October 31, 2018 Impaired Stage 3 (1)	October 31, 2018 Total
Investment securities								
Securities at FVOCI								
Investment grade	$ 50,640	$ 3	$ –	$ 50,643	$ 46,956	$ 479	$ –	$ 47,435
Non-investment grade	594	1	–	595	500	33	–	533
Impaired	–	–	127	127	–	–	125	125
	$ 51,234	$ 4	$ 127	$ 51,365	$ 47,456	$ 512	$ 125	$ 48,093
Items not subject to impairment (2)				530				406
				$ 51,895				$ 48,499
Securities at amortized cost								
Investment grade	$ 44,454	$ 112	$ –	$ 44,566	$ 44,958	$ 119	$ –	$ 45,077
Non-investment grade	549	685	–	1,234	367	703	–	1,070
Impaired	–	–	–	–	–	–	–	–
	$ 45,003	$ 797	$ –	$ 45,800	$ 45,325	$ 822	$ –	$ 46,147
Allowance for credit losses	6	30	–	36	6	32	–	38
Amortized cost	$ 44,997	$ 767	$ –	$ 45,764	$ 45,319	$ 790	$ –	$ 46,109

As at.

(1) Includes $127 million of purchased credit impaired securities (October 31, 2018 – $125 million).
(2) Investment securities at FVOCI not subject to impairment represent equity securities designated as FVOCI.

Note 5 Loans and allowance for credit losses

Allowance for credit losses

	For the three months ended									
	January 31, 2019					January 31, 2018				
(Millions of Canadian dollars)	Balance at beginning of period	Provision for credit losses	Net write-offs	Exchange rate and other (1)	Balance at end of period	Balance at beginning of period	Provision for credit losses	Net write-offs	Exchange rate and other (1)	Balance at end of period
Retail										
Residential mortgages	$ 382	$ 33	$ (4)	$ (2)	$ 409	$ 378	$ 13	$ (13)	$ (15)	$ 363
Personal	895	123	(113)	(13)	892	826	145	(102)	(8)	861
Credit cards	760	140	(120)	–	780	693	98	(110)	(1)	680
Small business	51	6	(5)	(1)	51	49	9	(7)	(1)	50
Wholesale	979	204	(61)	(12)	1,110	1,010	72	(18)	(39)	1,025
Customers' liability under acceptances	21	10	–	–	31	20	(3)	–	(1)	16
	$ 3,088	$ 516	$ (303)	$ (28)	$ 3,273	$ 2,976	$ 334	$ (250)	$ (65)	$ 2,995
Presented as:										
Allowance for loan losses	$ 2,912				$ 3,061	$ 2,749				$ 2,776
Other liabilities – Provisions	154				180	207				202
Customers' liability under acceptances	21				31	20				16
Other components of equity	1				1	–				1

(1) Includes interest income on impaired loans of $21 million for the three months ended January 31, 2019 (January 31, 2018 – $17 million).

The following table reconciles the opening and closing allowance for loans and commitments, by stage, for each major product category.

Reconciling items include the following:

- Transfers between stages, which are presumed to occur before any corresponding remeasurements of the allowance.
- Purchases and originations, which reflect the allowance related to assets newly recognized during the period, including those assets that were derecognized following a modification of terms.
- Derecognitions 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.
- Remeasurements, which comprise the impact of changes in model inputs or assumptions, including changes in forward-looking macroeconomic conditions; partial repayments and additional draws on existing facilities; changes in the measurement following a transfer between stages; and unwinding of the time value discount due to the passage of time in Stage 1 and Stage 2.

Allowance for credit losses – Retail and wholesale loans

	For the three months ended							
	January 31, 2019				January 31, 2018			
	Performing		Impaired		Performing		Impaired	
(Millions of Canadian dollars)	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
Residential mortgages								
Balance at beginning of period	$ 142	$ 64	$ 176	$ 382	$ 140	$ 65	$ 173	$ 378
Provision for credit losses								
Transfers in (out) to Stage 1	8	(8)	–	–	22	(22)	–	–
Transfers in (out) to Stage 2	(3)	4	(1)	–	(5)	5	–	–
Transfers in (out) to Stage 3	(1)	(8)	9	–	–	(3)	3	–
Purchases and originations	13	–	–	13	16	–	–	16
Derecognitions and maturities	(3)	(2)	–	(5)	(3)	(3)	–	(6)
Remeasurements	(18)	30	13	25	(36)	27	12	3
Write-offs	–	–	(5)	(5)	–	–	(14)	(14)
Recoveries	–	–	1	1	–	–	1	1
Exchange rate and other	–	(1)	(1)	(2)	(4)	(2)	(9)	(15)
Balance at end of period	$ 138	$ 79	$ 192	$ 409	$ 130	$ 67	$ 166	$ 363
Personal								
Balance at beginning of period	$ 242	$ 512	$ 141	$ 895	$ 278	$ 427	$ 121	$ 826
Provision for credit losses								
Transfers in (out) to Stage 1	132	(132)	–	–	204	(204)	–	–
Transfers in (out) to Stage 2	(23)	23	–	–	(42)	42	–	–
Transfers in (out) to Stage 3	–	(44)	44	–	–	(43)	43	–
Purchases and originations	23	–	–	23	26	2	–	28
Derecognitions and maturities	(7)	(30)	–	(37)	(9)	(35)	–	(44)
Remeasurements	(132)	190	79	137	(180)	271	70	161
Write-offs	–	–	(144)	(144)	–	–	(129)	(129)
Recoveries	–	–	31	31	–	–	27	27
Exchange rate and other	–	–	(13)	(13)	(2)	(1)	(5)	(8)
Balance at end of period	$ 235	$ 519	$ 138	$ 892	$ 275	$ 459	$ 127	$ 861
Credit cards								
Balance at beginning of period	$ 161	$ 599	$ –	$ 760	$ 251	$ 442	$ –	$ 693
Provision for credit losses								
Transfers in (out) to Stage 1	110	(110)	–	–	228	(228)	–	–
Transfers in (out) to Stage 2	(19)	19	–	–	(40)	40	–	–
Transfers in (out) to Stage 3	–	(80)	80	–	–	(37)	37	–
Purchases and originations	1	–	–	1	3	1	–	4
Derecognitions and maturities	(1)	(6)	–	(7)	(4)	(30)	–	(34)
Remeasurements	(84)	190	40	146	(224)	279	73	128
Write-offs	–	–	(153)	(153)	–	–	(142)	(142)
Recoveries	–	–	33	33	–	–	32	32
Exchange rate and other	–	–	–	–	(2)	1	–	(1)
Balance at end of period	$ 168	$ 612	$ –	$ 780	$ 212	$ 468	$ –	$ 680
Small business								
Balance at beginning of period	$ 17	$ 16	$ 18	$ 51	$ 15	$ 15	$ 19	$ 49
Provision for credit losses								
Transfers in (out) to Stage 1	5	(5)	–	–	8	(8)	–	–
Transfers in (out) to Stage 2	(1)	1	–	–	(2)	2	–	–
Transfers in (out) to Stage 3	–	(3)	3	–	–	(3)	3	–
Purchases and originations	3	–	–	3	3	–	–	3
Derecognitions and maturities	(1)	(2)	–	(3)	(1)	(2)	–	(3)
Remeasurements	(7)	11	2	6	(7)	12	4	9
Write-offs	–	–	(7)	(7)	–	–	(9)	(9)
Recoveries	–	–	2	2	–	–	2	2
Exchange rate and other	–	–	(1)	(1)	1	(1)	(1)	(1)
Balance at end of period	$ 16	$ 18	$ 17	$ 51	$ 17	$ 15	$ 18	$ 50
Wholesale								
Balance at beginning of period	$ 274	$ 340	$ 365	$ 979	$ 251	$ 352	$ 407	$ 1,010
Provision for credit losses								
Transfers in (out) to Stage 1	24	(24)	–	–	58	(58)	–	–
Transfers in (out) to Stage 2	(9)	11	(2)	–	(35)	35	–	–
Transfers in (out) to Stage 3	(1)	(16)	17	–	–	(6)	6	–
Purchases and originations	68	10	–	78	52	8	–	60
Derecognitions and maturities	(43)	(43)	–	(86)	(41)	(52)	–	(93)
Remeasurements	(11)	84	139	212	(32)	63	74	105
Write-offs	–	–	(68)	(68)	–	–	(27)	(27)
Recoveries	–	–	7	7	–	–	9	9
Exchange rate and other	(1)	(1)	(10)	(12)	(4)	(8)	(27)	(39)
Balance at end of period	$ 301	$ 361	$ 448	$ 1,110	$ 249	$ 334	$ 442	$ 1,025

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 as at the reporting date as outlined in the internal ratings maps for Wholesale and Retail facilities in the Credit risk section of our 2018 Annual Report.

	As at							
	January 31, 2019				October 31, 2018			
(Millions of Canadian dollars)	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
Retail								
Loans outstanding – Residential mortgages								
Low risk	$ 224,589	$ 4,523	$ –	$ 229,112	$ 222,026	$ 3,688	$ –	$ 225,714
Medium risk	13,229	1,455	–	14,684	13,681	1,369	–	15,050
High risk	2,559	2,836	–	5,395	2,577	2,897	–	5,474
Not rated	35,451	604	–	36,055	34,670	578	–	35,248
Impaired	–	–	754	754	–	–	726	726
	275,828	9,418	754	286,000	272,954	8,532	726	282,212
Items not subject to impairment (1)				312				259
Total				286,312				282,471
Loans outstanding – Personal								
Low risk	$ 70,837	$ 1,383	$ –	$ 72,220	$ 71,763	$ 1,256	$ –	$ 73,019
Medium risk	6,002	2,107	–	8,109	6,124	1,925	–	8,049
High risk	945	1,641	–	2,586	998	1,672	–	2,670
Not rated	8,041	70	–	8,111	8,595	64	–	8,659
Impaired	–	–	310	310	–	–	303	303
Total	85,825	5,201	310	91,336	87,480	4,917	303	92,700
Loans outstanding – Credit cards								
Low risk	$ 13,030	$ 102	$ –	$ 13,132	$ 13,185	$ 100	$ –	$ 13,285
Medium risk	2,124	1,621	–	3,745	2,234	1,632	–	3,866
High risk	131	1,293	–	1,424	139	1,331	–	1,470
Not rated	833	31	–	864	764	30	–	794
Total	16,118	3,047	–	19,165	16,322	3,093	–	19,415
Loans outstanding – Small business								
Low risk	$ 2,147	$ 29	$ –	$ 2,176	$ 2,004	$ 46	$ –	$ 2,050
Medium risk	2,180	99	–	2,279	2,230	102	–	2,332
High risk	88	188	–	276	95	178	–	273
Not rated	176	1	–	177	166	1	–	167
Impaired	–	–	46	46	–	–	44	44
Total	4,591	317	46	4,954	4,495	327	44	4,866
Undrawn loan commitments – Retail								
Low risk	$ 186,385	$ 1,474	$ –	$ 187,859	$ 182,426	$ 1,270	$ –	$ 183,696
Medium risk	9,791	244	–	10,035	10,794	239	–	11,033
High risk	3,745	158	–	3,903	3,740	166	–	3,906
Not rated	2,473	36	–	2,509	2,584	35	–	2,619
Total	202,394	1,912	–	204,306	199,544	1,710	–	201,254
Wholesale								
Loans outstanding								
Investment grade	$ 52,494	$ 201	$ –	$ 52,695	$ 46,869	$ 324	$ –	$ 47,193
Non-investment grade	109,104	12,015	–	121,119	106,027	10,190	–	116,217
Not rated	6,928	411	–	7,339	6,692	411	–	7,103
Impaired	–	–	1,647	1,647	–	–	1,096	1,096
	168,526	12,627	1,647	182,800	159,588	10,925	1,096	171,609
Items not subject to impairment (1)				8,314				8,669
Total				191,114				180,278
Undrawn loan commitments – Wholesale								
Investment grade	$ 227,610	$ 2	$ –	$ 227,612	$ 222,970	$ 93	$ –	$ 223,063
Non-investment grade	90,067	8,110	–	98,177	88,828	7,069	–	95,897
Not rated	4,764	–	–	4,764	4,291	–	–	4,291
Total	322,441	8,112	–	330,553	316,089	7,162	–	323,251

(1) Retail loans outstanding – Residential mortgages and Wholesale loans outstanding items not subject to impairment are loans held at FVTPL.

Loans past due but not impaired (1)

(Millions of Canadian dollars)	January 31, 2019 1 to 29 days	January 31, 2019 30 to 89 days	January 31, 2019 90 days and greater	January 31, 2019 Total	October 31, 2018 1 to 29 days	October 31, 2018 30 to 89 days	October 31, 2018 90 days and greater	October 31, 2018 Total
Retail	$ 2,992	$ 1,403	$ 174	$ 4,569	$ 2,995	$ 1,402	$ 179	$ 4,576
Wholesale	1,562	485	–	2,047	1,246	468	–	1,714
	$ 4,554	$ 1,888	$ 174	$ 6,616	$ 4,241	$ 1,870	$ 179	$ 6,290

(1) 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 refinancing. 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)	January 31, 2019 Demand (1)	January 31, 2019 Notice (2)	January 31, 2019 Term (3)	January 31, 2019 Total	October 31, 2018 Demand (1)	October 31, 2018 Notice (2)	October 31, 2018 Term (3)	October 31, 2018 Total
Personal	$ 138,660	$ 49,566	$ 91,945	$ 280,171	$ 135,101	$ 48,873	$ 86,180	$ 270,154
Business and government	233,044	8,416	298,774	540,234	238,617	8,606	287,148	534,371
Bank	8,019	172	23,968	32,159	8,750	299	23,472	32,521
	$ 379,723	$ 58,154	$ 414,687	$ 852,564	$ 382,468	$ 57,778	$ 396,800	$ 837,046
Non-interest-bearing (4)								
Canada	$ 88,807	$ 5,058	$ –	$ 93,865	$ 88,119	$ 5,086	$ –	$ 93,205
United States	30,411	–	–	30,411	34,098	–	–	34,098
Europe (5)	582	–	–	582	564	–	–	564
Other International	5,595	5	–	5,600	5,495	5	–	5,500
Interest-bearing (4)								
Canada	215,335	15,229	311,520	542,084	213,747	15,112	292,641	521,500
United States	2,510	33,430	63,170	99,110	2,478	33,099	67,211	102,788
Europe (5)	31,089	1,168	27,597	59,854	32,930	1,412	26,598	60,940
Other International	5,394	3,264	12,400	21,058	5,037	3,064	10,350	18,451
	$ 379,723	$ 58,154	$ 414,687	$ 852,564	$ 382,468	$ 57,778	$ 396,800	$ 837,046

(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 January 31, 2019, deposits denominated in U.S. dollars, British pounds, Euro and other foreign currencies were $315 billion, $21 billion, $42 billion and $32 billion, respectively (October 31, 2018 – $309 billion, $20 billion, $38 billion and $32 billion, respectively).
(5) Europe includes the United Kingdom, Luxembourg, the Channel Islands, France and Italy.

Note 6 Deposits (continued)

Contractual maturities of term deposits

(Millions of Canadian dollars)	As at January 31 2019	As at October 31 2018
Within 1 year:		
less than 3 months	$ 110,375	$ 89,553
3 to 6 months	48,374	59,109
6 to 12 months	79,462	80,773
1 to 2 years	59,814	51,798
2 to 3 years	42,381	45,550
3 to 4 years	26,131	21,127
4 to 5 years	23,684	23,863
Over 5 years	24,466	25,027
	$ 414,687	$ 396,800
Aggregate amount of term deposits in denominations of one hundred thousand dollars or more (1)	$ 378,000	$ 362,000

(1) Amounts have been revised from those previously presented.

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

	For the three months ended			
	Pension plans		Other post-employment benefit plans	
(Millions of Canadian dollars)	January 31 2019	January 31 2018	January 31 2019	January 31 2018
Current service costs	$ 74	$ 89	$ 10	$ 10
Net interest expense (income)	(5)	2	16	16
Remeasurements of other long term benefits	–	–	2	–
Administrative expense	4	4	–	–
Defined benefit pension expense	$ 73	$ 95	$ 28	$ 26
Defined contribution pension expense	61	52	–	–
	$ 134	$ 147	$ 28	$ 26

Pension and other post-employment benefit remeasurements (1)

	For the three months ended			
	Defined benefit pension plans		Other post-employment benefit plans	
(Millions of Canadian dollars)	January 31 2019	January 31 2018	January 31 2019	January 31 2018
Actuarial (gains) losses:				
Changes in financial assumptions	$ 607	$ 18	$ 57	$ –
Experience adjustments	–	–	(1)	(2)
Return on plan assets (excluding interest based on discount rate)	(144)	(85)	–	–
	$ 463	$ (67)	$ 56	$ (2)

(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.

Note 8 Income taxes

Tax examinations and assessments

During the first quarter, we received reassessments from the Canada Revenue Agency (CRA) in respect of the 2013 and 2012 taxation years which disallowed dividend deductions resulting in additional income taxes as the tax deductibility of certain dividends was denied on the basis that they were part of a "dividend rental arrangement". The reassessments are consistent with the previously received proposal letters as described in Note 22 of our 2018 Annual Consolidated Financial Statements. 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

On November 2, 2018, we issued 14 million Non-Cumulative 5-Year Rate Reset First Preferred Shares Series BO at a price of $25 per share, for total gross proceeds of $350 million. For the initial five year period to the earliest redemption date of February 24, 2024, the Series BO Preferred Shares pay quarterly cash dividends, if declared, at a rate of 4.8% per annum. The dividend rate will reset on the earliest redemption date and every fifth year thereafter at a rate equal to the 5-year Government of Canada bond yield plus a premium of 2.38%. Holders have the option to convert their shares into Non-Cumulative Floating Rate First Preferred Shares, Series BP, subject to certain conditions, on the earliest redemption date and every fifth year thereafter at a rate equal to the 3-month Government of Canada Treasury Bill yield plus 2.38%. Subject to the consent of OSFI and the requirements of the Bank Act (Canada), we may redeem the Series BO Preferred Shares in whole or in part at a price per share of $25 on the earliest redemption date and every fifth year thereafter. The Series BO Preferred Shares include NVCC provisions which are necessary for the shares to qualify as Tier 1 regulatory capital.

On November 24, 2018, we redeemed all 10 million Non-Cumulative First Preferred Shares Series AD at a price of $25 per share.

Common shares issued (1)

	For the three months ended			
	January 31, 2019		January 31, 2018	
(Millions of Canadian dollars, except number of shares)	Number of shares (thousands)	Amount	Number of shares (thousands)	Amount
Issued in connection with share-based compensation plans (2)	159	$ 11	464	$ 30
Purchased for cancellation (3)	(3,684)	(45)	(9,297)	(113)
	(3,525)	$ (34)	(8,833)	$ (83)

(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 months ended January 31, 2019 and January 31, 2018, 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 months ended January 31, 2019, we purchased for cancellation common shares at a total fair value of $348 million (average cost of $94.40 per share), with a book value of $45 million (book value of $12.25 per share). During the three months ended January 31, 2018, we purchased for cancellation common shares at a total fair value of $923 million (average cost of $99.29 per share), with a book value of $113 million (book value of $12.25 per share).

Note 10 Earnings per share

(Millions of Canadian dollars, except share and per share amounts)	For the three months ended January 31 2019	January 31 2018
Basic earnings per share		
Net income	$ 3,172	$ 3,012
Preferred share dividends	(74)	(72)
Net income attributable to non-controlling interest	(2)	(11)
Net income available to common shareholders	3,096	2,929
Weighted average number of common shares (in thousands)	1,437,074	1,451,781
Basic earnings per share (in dollars)	$ 2.15	$ 2.02
Diluted earnings per share		
Net income available to common shareholders	$ 3,096	$ 2,929
Dilutive impact of exchangeable shares	4	4
Net income available to common shareholders including dilutive impact of exchangeable shares	3,100	2,933
Weighted average number of common shares (in thousands)	1,437,074	1,451,781
Stock options (1)	2,033	3,069
Issuable under other share-based compensation plans	737	751
Exchangeable shares (2)	3,351	3,113
Average number of diluted common shares (in thousands)	1,443,195	1,458,714
Diluted earnings per share (in dollars)	$ 2.15	$ 2.01

(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 January 31, 2019, 1,364,706 outstanding options with an average price of $99.73 were excluded from the calculation of diluted earnings per share. For the three months ended January 31, 2018, no outstanding options were excluded from the calculation of diluted earnings per share.

(2) Includes exchangeable preferred shares.

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. As a result, 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 proceedings and regulatory matters are those disclosed in our audited 2018 Annual Consolidated Financial Statements as updated below:

Interchange fees litigation

The trial in the *Watson* proceeding has been rescheduled from October 14, 2019 to October 19, 2020.

Note 12 Results by business segment

	For the three months ended January 31, 2019						
(Millions of Canadian dollars)	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets (1)	Corporate Support (1)	Total
Net interest income (2)	$ 3,134	$ 744	$ –	$ (31)	$ 1,006	$ 31	$ 4,884
Non-interest income	1,284	2,204	1,579	662	1,092	(116)	6,705
Total revenue	4,418	2,948	1,579	631	2,098	(85)	11,589
Provision for credit losses	348	26	–	–	140	–	514
Insurance policyholder benefits, claims and acquisition expense	–	–	1,225	–	–	–	1,225
Non-interest expense	1,915	2,164	154	418	1,230	31	5,912
Net income (loss) before income taxes	2,155	758	200	213	728	(116)	3,938
Income taxes (recoveries)	584	161	34	52	75	(140)	766
Net income	$ 1,571	$ 597	$ 166	$ 161	$ 653	$ 24	$ 3,172
Non-interest expense includes:							
Depreciation and amortization	$ 153	$ 147	$ 11	$ 34	$ 95	$ –	$ 440

	For the three months ended January 31, 2018						
(Millions of Canadian dollars)	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets (1)	Corporate Support (1)	Total
Net interest income (2)	$ 2,856	$ 612	$ –	$ 128	$ 866	$ (17)	$ 4,445
Non-interest income	1,309	2,171	1,144	548	1,309	(98)	6,383
Total revenue	4,165	2,783	1,144	676	2,175	(115)	10,828
Provision for credit losses	317	(2)	–	–	20	(1)	334
Insurance policyholder benefits, claims and acquisition expense	–	–	836	–	–	–	836
Non-interest expense	1,801	2,011	142	389	1,214	54	5,611
Net income (loss) before income taxes	2,047	774	166	287	941	(168)	4,047
Income taxes (recoveries)	526	177	39	68	193	32	1,035
Net income	$ 1,521	$ 597	$ 127	$ 219	$ 748	$ (200)	$ 3,012
Non-interest expense includes:							
Depreciation and amortization	$ 140	$ 130	$ 9	$ 30	$ 87	$ –	$ 396

(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

	As at January 31, 2019						
(Millions of Canadian dollars)	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets	Corporate Support	Total
Total assets	$ 458,817	$ 93,905	$ 16,787	$ 148,670	$ 604,422	$ 43,606	$ 1,366,207
Total liabilities	$ 458,826	$ 94,050	$ 16,826	$ 148,658	$ 604,438	$ (37,241)	$ 1,285,557

	As at October 31, 2018						
(Millions of Canadian dollars)	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets	Corporate Support	Total
Total assets	$ 453,879	$ 93,063	$ 16,210	$ 136,030	$ 590,950	$ 44,602	$ 1,334,734
Total liabilities	$ 453,878	$ 93,162	$ 16,289	$ 135,944	$ 590,582	$ (35,076)	$ 1,254,779

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 first quarter of 2019, we complied with all capital and leverage requirements, including the domestic stability buffer, imposed by OSFI.

	As at	
(Millions of Canadian dollars, except Capital ratios and leverage ratios)	January 31 2019	October 31 2018
Capital (1)		
CET1 capital	$ 57,963	$ 57,001
Tier 1 capital	64,341	63,279
Total capital	73,758	72,494
Risk-weighted Assets (RWA) used in calculation of capital ratios (1) (2)		
CET1 capital RWA	508,512	495,528
Tier 1 capital RWA	508,512	495,993
Total capital RWA	508,512	496,459
Total capital RWA consisting of: (1)		
Credit risk	410,003	401,534
Market risk	34,862	32,209
Operational risk	63,647	62,716
Total Capital RWA	$ 508,512	$ 496,459
Capital ratios and Leverage ratios (1)		
CET1 ratio	11.4%	11.5%
Tier 1 capital ratio	12.7%	12.8%
Total capital ratio	14.5%	14.6%
Leverage ratio	4.3%	4.4%
Leverage ratio exposure (billions)	$ 1,501.8	$ 1,450.8

(1) Capital, RWA, and capital ratios are calculated using OSFI Capital Adequacy Requirements based on the Basel III framework. The leverage ratio is calculated using OSFI Leverage Requirements Guideline based on the Basel III framework.

(2) In fiscal 2018, amounts included CVA scalars of 80%, 83% and 86%, respectively.

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)

All preferred shares are listed on the TSX with the exception of the series C-2. 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

For other shareholder inquiries, please contact:
Shareholder Relations
Royal Bank of Canada
200 Bay Street
South Tower
Toronto, Ontario M5J 2J5
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Tel: 416-955-7806

Financial analysts, portfolio managers, institutional investors
For financial information inquiries, please contact:
Investor Relations
Royal Bank of Canada
155 Wellington Street West
Toronto, Ontario M5V 3K7
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 RBC 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
We are engaged in a Normal Course Issuer Bid (NCIB) which allows us to repurchase for cancellation, up to 30 million common shares during the period spanning from February 27, 2018 to February 26, 2019, when the bid expires, or such earlier date as we may complete the purchases pursuant to our Notice of Intention filed with the Toronto Stock Exchange.

We determine the amount and timing of the purchases under the NCIB, subject to prior consultation with the Office of the Superintendent of Financial Institutions Canada.

A copy of our Notice of Intention to file a NCIB may be obtained, without charge, by contacting our Corporate Secretary at our Toronto mailing address.

2019 Quarterly earnings release dates

First quarter	February 22
Second quarter	May 23
Third quarter	August 21
Fourth quarter	December 4

2019 Annual Meeting
The Annual Meeting of Common Shareholders will be held on Thursday, April 4, 2019, at 9:30 a.m. (Atlantic Time) at the Halifax Convention Centre, 1650 Argyle Street, Halifax, Nova Scotia, Canada.

Dividend dates for 2019
Subject to approval by the Board of Directors

	Record dates	Payment dates
Common and preferred shares series W, AA, AC, AE, AF, AG, AZ, BB, BD, BF, BH, BI, BJ, BK, BM and BO	January 24 April 25 July 25 October 24	February 22 May 24 August 23 November 22
Preferred shares series AJ,AK and AL	January 24	February 22
Preferred shares series C-2 (US$)	January 28 April 26 July 26 October 28	February 7 May 7 August 7 November 7

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.

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.