



Royal Bank of Canada second quarter 2017 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.

TORONTO, May 25, 2017 – Royal Bank of Canada (RY on TSX and NYSE) today reported net income of \$2,809 million for the second quarter ended April 30, 2017, up \$236 million or 9% from a year ago. Results reflect strong earnings in Capital Markets, Investor & Treasury Services, and Wealth Management, as well as solid earnings in Personal & Commercial Banking. We also remain well-capitalized with a Common Equity Tier 1 (CET1) ratio of 10.6%.

Compared to last quarter, net income was down \$218 million or 7%. Excluding our share of a gain recorded last quarter related to the sale of the U.S. operations of Moneris Solutions Corporation (Moneris), which was \$212 million (before- and after-tax), net income was relatively unchanged⁽¹⁾, while diluted earnings per share (EPS) grew \$0.02. Credit quality remains strong, with our provision for credit losses (PCL) ratio of 0.23%.

“RBC had a strong second quarter, with earnings of \$2.8 billion, reflecting solid growth across most of our businesses and prudent risk management. I’m very pleased with our performance for the first half of the year given the uncertain operating environment. Our strong capital position allowed us to repurchase over 30 million of our common shares so far this year,” said Dave McKay, RBC President and Chief Executive Officer. “Innovation is core to RBC, and we continue to invest in building a digitally-enabled relationship bank to better serve our clients while delivering sustainable earnings growth.”

Q2 2017 compared to Q2 2016

- Net income of \$2,809 million (up 9% from \$2,573 million)
- Diluted EPS of \$1.85 (up \$0.19 or 11% from \$1.66)
- Return on common equity (ROE)⁽²⁾ of 17.2% (up 100 basis points (bps) from 16.2%)
- CET1 ratio of 10.6% (up 30 bps from 10.3%)

Q2 2017 compared to Q1 2017

- Net income of \$2,809 million (down 7% from \$3,027 million)
- Diluted EPS of \$1.85 (down \$0.12 or 6% from \$1.97)
- ROE of 17.2% (down 80 bps from 18.0%)
- CET1 ratio of 10.6% (down 40 bps from 11.0%)

Excluding Q1 specified item⁽⁴⁾: Q2 2017 compared to Q1 2017

- Net income of \$2,809 million (down slightly from \$2,815 million)
- Diluted EPS of \$1.85 (up \$0.02 or 1% from \$1.83)
- ROE of 17.2% (up 50 bps from 16.7%)

YTD 2017 compared to YTD 2016

- Net income of \$5,836 million (up 16% from \$5,020 million)
- Diluted EPS of \$3.82 (up \$0.57 or 18% from \$3.25)
- ROE of 17.7% (up 190 bps from 15.8%)

Excluding Q1 specified item⁽⁴⁾: YTD 2017 compared to YTD 2016

- Net income of \$5,624 million (up 12% from \$5,020 million)
- Diluted EPS of \$3.68 (up \$0.43 or 13% from \$3.25)
- ROE of 17.0% (up 120 bps from 15.8%)

The specified item comprises our share of a gain recorded in Q1 2017 related to the sale of the U.S. operations of Moneris to Vantiv, Inc., which was \$212 million (before- and after-tax).

- (1) These measures are non-GAAP. For further information, including a reconciliation, refer to the Key performance and non-GAAP measures section of this Q2 2017 Report to Shareholders.
- (2) 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 Q2 2017 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 April 30, 2017, compared to the corresponding periods in the prior fiscal year and the three month period ended January 31, 2017. This MD&A should be read in conjunction with our unaudited Interim Condensed Consolidated Financial Statements for the quarter ended April 30, 2017 (Condensed Financial Statements) and related notes and our 2016 Annual Report. This MD&A is dated May 24, 2017. 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 2016 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 Q2 2017 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 and market review and outlook for Canadian, U.S., European and global economies, the regulatory environment in which we operate, the outlook and priorities for each of our business segments, 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 management and Overview of other risks sections of our 2016 Annual Report and the Risk management section of this Q2 2017 Report to Shareholders; global uncertainty, the Brexit vote to have the United Kingdom leave the European Union, weak oil and gas prices, cyber risk, anti-money laundering, exposure to more volatile sectors, technological innovation and new Fintech entrants, increasing complexity of regulation, data management, litigation and administrative penalties, 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 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 Q2 2017 Report to Shareholders are set out in the Overview and outlook section and for each business segment under the heading Outlook and priorities in our 2016 Annual Report, as updated by the Overview and outlook section of this Q2 2017 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 management and Overview of other risks sections of our 2016 Annual Report and the Risk management section of this Q2 2017 Report to Shareholders.

Overview and outlook

About Royal Bank of Canada

Royal Bank of Canada is Canada's largest bank, and one of the largest banks in the world, based on market capitalization. We are one of North America's leading diversified financial services companies, and provide personal and commercial banking, wealth management, insurance, investor services and capital markets products and services on a global basis. We have approximately 80,000 full- and part-time employees who serve more than 16 million personal, business, public sector and institutional clients through offices in Canada, the U.S. and 35 other countries. For more information, please visit rbc.com.

Selected financial and other highlights

	As at or for the three months ended			As at or for the six months ended	
	April 30 2017	January 31 2017	April 30 2016	April 30 2017	April 30 2016
(Millions of Canadian dollars, except per share, number of and percentage amounts)					
Total revenue	\$ 10,310	\$ 9,546	\$ 9,526	\$ 19,856	\$ 18,885
Provision for credit losses (PCL)	302	294	460	596	870
Insurance policyholder benefits, claims and acquisition expense (PBCAE)	1,090	183	988	1,273	1,817
Non-interest expense	5,229	5,215	4,887	10,444	9,847
Income before income taxes	3,689	3,854	3,191	7,543	6,351
Net income	\$ 2,809	\$ 3,027	\$ 2,573	\$ 5,836	\$ 5,020
Segments – net income					
Personal & Commercial Banking	\$ 1,360	\$ 1,592	\$ 1,297	\$ 2,952	\$ 2,587
Wealth Management	431	430	386	861	689
Insurance	166	134	177	300	308
Investor & Treasury Services	193	214	139	407	282
Capital Markets	668	662	583	1,330	1,153
Corporate Support	(9)	(5)	(9)	(14)	1
Net income	\$ 2,809	\$ 3,027	\$ 2,573	\$ 5,836	\$ 5,020
Selected information					
Earnings per share (EPS) – basic	\$ 1.86	\$ 1.98	\$ 1.67	\$ 3.84	\$ 3.26
– diluted	1.85	1.97	1.66	3.82	3.25
Return on common equity (ROE) (1), (2)	17.2%	18.0%	16.2%	17.7%	15.8%
Average common equity (1)	64,800	64,650	62,400	64,700	61,950
Net interest margin (on average earning assets) (3)	1.73%	1.73%	1.70%	1.73%	1.71%
Total PCL as a % of average net loans and acceptances	0.23%	0.22%	0.36%	0.22%	0.33%
PCL on impaired loans as a % of average net loans and acceptances	0.23%	0.22%	0.32%	0.22%	0.31%
Gross impaired loans (GIL) as a % of loans and acceptances (4)	0.59%	0.66%	0.71%	0.59%	0.71%
Liquidity coverage ratio (LCR) (5)	123%	123%	133%	123%	133%
Capital ratios and Leverage ratio					
Common Equity Tier 1 (CET1) ratio (6)	10.6%	11.0%	10.3%	10.6%	10.3%
Tier 1 capital ratio (6)	12.0%	12.6%	11.9%	12.0%	11.9%
Total capital ratio (6)	14.1%	14.7%	14.0%	14.1%	14.0%
Leverage ratio (6)	4.3%	4.4%	4.2%	4.3%	4.2%
Selected balance sheet and other information (7)					
Total assets	\$ 1,202,919	\$ 1,161,766	\$ 1,150,357	\$ 1,202,919	\$ 1,150,357
Securities	219,405	224,827	224,371	219,405	224,371
Loans (net of allowance for loan losses)	532,262	522,010	508,194	532,262	508,194
Derivative related assets	100,763	97,419	115,298	100,763	115,298
Deposits	785,583	757,512	741,454	785,583	741,454
Common equity	65,858	64,853	60,825	65,858	60,825
Total capital risk-weighted assets	471,176	443,940	437,148	471,176	437,148
Assets under management (AUM)	614,600	584,100	544,900	614,600	544,900
Assets under administration (AUA) (8), (9)	5,314,500	4,934,600	4,670,000	5,314,500	4,670,000
Common share information					
Shares outstanding (000s) – average basic	1,468,015	1,484,262	1,487,346	1,476,273	1,486,871
– average diluted	1,475,562	1,492,350	1,495,609	1,484,332	1,495,245
– end of period	1,457,291	1,475,540	1,488,219	1,457,291	1,488,219
Dividends declared per common share	\$ 0.87	\$ 0.83	\$ 0.81	\$ 1.70	\$ 1.60
Dividend yield (10)	3.6%	3.8%	4.5%	3.70%	4.5%
Common share price (RY on TSX) (11)	\$ 93.47	\$ 93.56	\$ 77.92	\$ 93.47	\$ 77.92
Market capitalization (TSX) (11)	136,213	138,052	115,962	136,213	115,962
Business information (number of)					
Employees (full-time equivalent) (FTE)	75,281	75,459	76,300	75,281	76,300
Bank branches	1,401	1,415	1,427	1,401	1,427
Automated teller machines (ATMs)	4,893	4,902	4,898	4,893	4,898
Period average US\$ equivalent of C\$1.00 (12)	\$ 0.746	\$ 0.752	\$ 0.768	\$ 0.749	\$ 0.748
Period-end US\$ equivalent of C\$1.00	\$ 0.733	\$ 0.769	\$ 0.797	\$ 0.733	\$ 0.797

- 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.
- 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.
- Net interest margin (on average earning assets) is calculated as net interest income divided by average earning assets. Average amounts are calculated using methods intended to approximate the average of the daily balances for the period.
- GIL includes \$331 million (January 31, 2017 – \$348 million) related to the acquired credit-impaired (ACI) loans portfolio from our acquisition of City National Corporation (City National). ACI loans added 6 bps to our second quarter 2017 GIL ratio (January 31, 2017 – 6 bps). For further details, refer to Note 5 of our Condensed Financial Statements.
- LCR is calculated using the Basel III Liquidity Adequacy Requirements (LAR) guideline. Effective the first quarter of 2017, OSFI requires the LCR to be disclosed based on the average of the daily positions during the quarter. For further details, refer to the Liquidity and funding risk section.
- Capital and Leverage ratios presented above are on an “all-in” basis. The Leverage ratio is a regulatory measure under the Basel III framework. For further details, refer to the Capital management section.
- Represents period-end spot balances.
- AUA includes \$18.9 billion and \$9.8 billion (January 31, 2017 – \$18.7 billion and \$8.4 billion; April 30, 2016 – \$19.8 billion and \$9.9 billion) of securitized residential mortgages and credit card loans, respectively.
- Prior period amounts have been revised from those previously disclosed.
- Defined as dividends per common share divided by the average of the high and low share price in the relevant period.
- Based on TSX closing market price at period-end.
- Average amounts are calculated using month-end spot rates for the period.

Economic, market and regulatory review and outlook – data as at May 24, 2017

The economic 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.

Canada

The Canadian economy is expected to have grown by an estimated rate of 3.8%¹ in the first calendar quarter as recent economic activity continued to outperform our forecast. The manufacturing and mining sectors have been boosted by improved sales volumes and a recovery in commodity prices. The unemployment rate decreased to 6.5% in April, compared to 6.7% in March and job growth in Canada has been unusually strong, though wage growth has been subdued. Retail sales are also contributing to growth as consumer confidence continues to strengthen and interest rates remain low. Housing starts in April fell to 214,000 annualized units, down from 254,000 in March, which had represented one of the highest levels since September 2007. Strong home buying activity year-to-date coincides with near-record home sales and rapidly rising home prices. Recent economic indicators have exceeded expectations. However, the Bank of Canada (BoC) remained neutral on its monetary policy stance and maintained its overnight rate at 0.5% in April 2017, noting that it was too early to conclude that the growth will be sustained due to heightened uncertainty amid potential U.S. policy changes.

We expect the Canadian economy to grow at a rate of 2.4% during calendar 2017, which is above our estimate from February 23, 2017 of 1.8%. Building off momentum in the latter part of 2016, we expect fiscal stimulus, strong consumer spending, improvements in business investments and a solid labour market will continue to boost growth. We expect the BoC to maintain its overnight rate at 0.5% throughout 2017 and begin raising rates in the second quarter of 2018, when the economy is expected to reach full capacity.

U.S.

Growth in the U.S. economy slowed to a rate of 0.7%¹ in the first calendar quarter of 2017, compared to the previous quarter's growth of 2.1%¹, proving to be the weakest performance since 2014 as businesses invested less in inventory levels and consumers pulled back on spending. The decline in consumer spending is expected to be temporary as households have been boosted by higher wages, strong job growth, continued consumer confidence, wealth accumulation from rising equity markets and home prices, as well as low interest rates. In April, the unemployment rate dropped to 4.4%, which came close to a 10-year low. Business investment has also seen improvement, including expansion in the energy sector as oil prices are forecasted to return to levels above US\$50 per barrel. Business confidence has improved as the new U.S. administration has indicated that their proposed policy changes include lower corporate tax rates and a reduction in regulatory requirements. As a result of improving economic conditions, the Federal Reserve Board (Fed) raised its funds target range by 25 basis points to 0.75% to 1.00% in March, while leaving the rates unchanged in their May 2017 announcement.

We expect the U.S. economy to grow at a rate of 2.1% for calendar 2017, slightly lower than our previous estimate of 2.3% on February 23, 2017. Households continue to be supported by wage growth, low unemployment, and rising confidence. In addition, business sentiment has been improving in anticipation of favourable fiscal policy due to the anticipated corporate tax cuts. With the expectation of strong growth and improving economic conditions, we expect a further withdrawal of stimulus. As such, we anticipate another rate hike as early as June 2017.

Europe

The Euro area economy grew by 0.5% in the first calendar quarter of 2017, which is consistent with the growth from the prior quarter. Momentum in Europe remains strong and domestic risks have diminished due to reduced political risks and uncertainties. Monetary stimulus and improving labour markets have supported economic activity, while overall economic sentiment remains high. The unemployment rate reached its lowest level since January 2009 at 9.5% in March, compared to 9.6% in December 2016. Although the outlook has been improving, the European Central Bank (ECB) does not expect to withdraw their stimulus programs as underlying inflation remains well below their target. In April, the ECB left its monetary monthly asset purchase program at €60 billion with guidance that purchases will continue until the end of the year, or beyond, if necessary.

We expect the Euro area economy to grow at a rate of 1.6% during calendar 2017, which is higher than our previous estimate of 1.5% on February 23, 2017. Subdued inflationary pressures and lingering downside risks have caused the ECB to hold its deposit rate at (0.4)%. Until inflation concerns are addressed, we expect the ECB to hold its deposit rate at the current level and continue its asset purchase program through the end of this year as planned.

Financial markets

Political risks have been a significant driver of volatility in financial markets during the quarter, as differences on trade have created tensions between Canada and the U.S., while Brexit negotiations are beginning and are expected to be contentious as negotiators from the U.K. and the EU have differing opinions on some key issues. Equity markets have continued to rebound from the setbacks seen in the prior year, particularly in the energy sector, while U.S. bond markets saw spreads compress during the quarter. However, recent concerns of oversupply have created a renewed volatility in oil prices, though prices are still well above the lows seen in the prior year. Global monetary policies continue to diverge as most central banks stimulated their economies with low interest rates, while the U.S. has removed monetary accommodations by announcing another rate hike in March, with two more projected in 2017, as the Fed is close to its inflation and employment objectives. During the quarter, U.S. bond yields experienced a boost in anticipation of stronger economic activity and reduced monetary stimulus. However, they quickly retreated as confidence fell over concerns on U.S. public policy.

1 Annualized rate

The macroeconomic headwinds discussed above, such as the potential for greater uncertainty or financial market instability related to proposed policies by the U.S. administration and the Brexit negotiations, the volatility of energy prices, and greater global economic uncertainty may alter our outlook and results for fiscal 2017 and future periods. These continuing pressures may lead to higher PCL in our wholesale and retail loan portfolios and impact the general business and economic conditions in the regions we operate.

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. As discussed below, recent political developments, including the new presidential administration in the U.S. and the U.K. negotiations to exit the EU, have resulted in uncertainty as to the implementation, scope and timing of regulatory reforms.

U.S. Regulatory and Tax Reform

On February 3, 2017, the U.S. President signed an Executive Order directing the Secretary of the Treasury to review the adequacy of U.S. federal financial regulations in meeting the “Core Principles” for financial regulation identified in the Order. The Treasury Secretary’s recommendations to the President are due in early June. The report may lead to financial regulatory reforms, including some that could have a favorable impact for financial institutions. The extent and timing of these reforms are unknown at this time and it is possible that no reforms may be implemented, or that the reforms that are implemented could have an adverse effect on us. Various statements and proposals from the U.S. administration and key members of Congress have additionally suggested continued support for measures that could add to, rather than alleviate, regulatory burdens on large financial institutions.

The Administration has proposed measures to reform the U.S. tax code by lowering corporate and individual tax rates, and by eliminating or revising certain tax provisions that would broaden the tax base for companies paying taxes in the U.S. The outcome of these proposals could be favourable for our U.S. operations in the form of lower U.S. federal tax rates and unfavourable to the extent the tax treatment of specific investments and activities, such as municipal debt, derivatives and interest on debt, is adversely impacted.

Global Over-the-Counter (OTC) Derivatives Reform

Global margin rules represent a fundamental change in how non-centrally cleared OTC derivatives are traded. The requirement to exchange regulatory margin is being phased in until 2020. On September 1, 2016, we began to exchange initial and variation margin on bilateral OTC derivatives with our largest counterparties in accordance with U.S. prudential regulators’ rules. We began to exchange initial and variation margin with our largest EU counterparties on February 6, 2017 and began to exchange variation margin with most other counterparties on March 1, 2017. U.S., EU and Canadian regulators provided a deferral to the March 1, 2017 deadline in respect of certain counterparties by allowing swap dealers up to September 1, 2017 to exchange variation margin and continue trading with counterparties that do not represent significant exposure. As of September 1, 2017, we will be required to exchange initial margin with the next category of market participants on a global basis.

On January 19, 2017, the Canadian Securities Administrators (CSA) adopted National Instrument 94-101, *Mandatory Central Counterparty Clearing of Derivatives*, which introduces a requirement for Canadian counterparties to clear specific OTC derivatives when trading with certain other counterparties. Effective April 4, 2017, we are required to clear trades with other in-scope clearing members as a subscribing clearing member of a regulated clearing agency. Effective October 4, 2017, the clearing obligation will extend to all other in-scope counterparties, which may include our affiliates with outstanding OTC derivatives exceeding a prescribed month-end amount.

On April 4, 2017, the CSA published proposed National Instrument 93-101: *Derivatives: Business Conduct Rules*. The proposed rules impose a business conduct standard on derivatives dealers and derivatives advisers when transacting in OTC derivatives with derivatives parties.

On September 28, 2016, the Commodity Futures Trading Commission expanded the classes of OTC derivatives to be centrally cleared, including, among others, fixed-to-floating interest rate swaps and overnight index swaps denominated in Canadian dollars. The expanded classes were required to be cleared beginning April 10, 2017. The mandatory clearing regimes for Hong Kong and Singapore will begin in the second half of 2017.

Uniform Fiduciary Standards

On April 6, 2016, the U.S. Department of Labor (DOL) issued a final rule establishing a uniform fiduciary standard for providers of investment advice and related services in connection with U.S. retirement plans and holders of individual retirement accounts, effective April 10, 2017. In its current form, the rule presents significant operational challenges for our U.S. Wealth Management business and clients, but does not materially impact our U.S. Wealth Management business or our overall results. On February 3, 2017, the U.S. President directed the DOL to examine whether the rule may adversely affect the ability of Americans to gain access to retirement information and financial advice. The Presidential Memorandum further directs the Secretary of Labor to rescind or revise the DOL Fiduciary Rule as appropriate, to ensure it is consistent with existing law. On April 7, 2017, the DOL deferred the applicability date of the rule by 60 days to June 9, 2017 to allow time to perform its examination and consider possible changes with respect to the rule. We are continuing to prepare for compliance with the rule in its present form by June 9, 2017, as we and similarly impacted organizations await the outcome of the DOL’s examination, which could impact both the substance and timing of our compliance efforts. The Securities Industry and Financial Markets Association, to which we belong, has requested that the DOL extend the applicability date by an additional 180 days to allow additional time for the DOL to conduct and complete its review of the DOL Fiduciary Rule. More than 100 members of Congress have urged the Secretary of Labor to delay the rule for an additional period in its entirety to help ensure that the rule does not go into effect (in whole or in part) while the DOL’s review is ongoing. There remains legal uncertainty about whether and to what extent the rule will be changed.

Regulatory Capital and Related Requirements

In 2015 and 2016, the Basel Committee on Banking Supervision (BCBS) issued consultations on a number of proposals that would reform the manner in which banks calculate, measure, and report regulatory capital and related risks, including the use of a bank's own internal risk models. On January 3, 2017, the BCBS announced a delay in finalizing these proposed revisions and we anticipate they could be amended further. As a result, the impact on our regulatory capital ratios will depend upon the final standards adopted by the BCBS and how those standards are ultimately implemented by the Office of the Superintendent of Financial Institutions (OSFI). The BCBS had previously stated its expectation for those proposals to have a relatively modest impact on capital and leverage for most banks upon finalization.

In January 2016, the BCBS finalized a revised framework for calculating market risk capital, the Fundamental Review of the Trading Book (FRTB). FRTB's purpose is to revise the framework for large, internationally active banks by including: (i) a revised boundary between the trading book and banking book; (ii) a revised internal models approach for market risk; (iii) a revised standardized approach for market risk; (iv) a shift from value-at-risk to an expected shortfall measure of risk under stress; and (v) incorporation of the risk of market illiquidity. As with similarly affected organizations, the rule will result in significant changes to our systems and methodologies for calculating market risk capital, and may increase the level of market risk risk-weighted assets that we are required to hold.

With respect to liquidity measurement, in October 2014, the BCBS released its final Net Stable Funding Ratio (NSFR) standard, which requires banks to fund their activities with sufficiently stable sources of funding. The NSFR is intended to reduce structural funding risk by requiring banks to have sufficient stable funding to support their business with less reliance on funding maturing in one year. On March 6, 2017, OSFI announced that it will require Canadian banks to comply with the NSFR requirements by January 1, 2019.

Our U.S. Intermediate Holding Company (IHC) is subject to Comprehensive Capital Analysis and Review (CCAR), the Fed's annual evaluation of the capital planning processes and capital adequacy of the largest U.S.-based bank holding companies and U.S. IHCs of Foreign Banking Organizations with total consolidated assets greater than US\$50 billion. Under CCAR, the Fed also reviews planned capital actions such as dividend payments, share buybacks and issuances. Our U.S. IHC became subject to CCAR in 2017. For CCAR filings due in 2017, the Fed has announced that it will not publish its assessment of the planned capital actions of U.S. IHCs participating in CCAR for the first time, such as ours. For those IHCs, publication will commence for CCAR filings in 2018. We have incurred, and will continue to incur, costs to comply with these additional U.S. requirements, but the impacts are not expected to materially affect our overall results.

U.K. and European Regulatory Reform

Markets in Financial Instruments Directive II/Regulation (MiFID II/MiFIR) becomes effective January 2018 and will have a significant technological and procedural impact for certain of our businesses operating in the EU as it relates to changes to pre- and post-trade transparency, market structure, transaction reporting, algorithmic trading, and conduct of business rules. Unlike the current MiFID regime, which applies primarily to equities, MiFID II/MiFIR will also extend to Fixed Income and "Equity-like" products.

The provision of benchmarks will become a regulated activity under the Benchmarks Regulation, requiring benchmark providers to obtain prior authorization and undergo supervision at a national and EU level, effective January 2018. The Regulation will introduce obligations for us as an administrator of, a user of, and a contributor to benchmarks.

The General Data Protection Regulation becomes effective in May 2018 and introduces a number of obligations that will apply globally to entities that control or process personal data pertaining to EU individuals. These include requirements relating to breach notification, the appointment of an appropriately qualified and experienced Data Protection Officer, more stringent requirements with respect to obtaining valid consent to process data, and significantly increased information provisions, compliance and documentation obligations.

Formal notification of the U.K.'s intention to withdraw from the EU under Article 50 of the Treaty of Lisbon was given on March 29, 2017, triggering the start of a two year negotiation period to determine the terms of withdrawal. Until those negotiations are concluded or the negotiation period expires, the U.K. will remain an EU Member State, subject to all EU legislation.

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 environmental risk sections of our 2016 Annual Report and the Q1 2017 Report to Shareholders. For further details on our framework and activities to manage risks, refer to the Risk management and Capital management sections of our 2016 Annual Report and the Risk management and Capital management sections of this Q2 2017 Report to Shareholders.

Key corporate events of 2017

Certain Caribbean Wealth Management businesses

On May 12, 2017, we completed the previously announced sale of our trust, custody and fund administration businesses in the Caribbean to SMP Partners Group. For further details, refer to Note 15 of our Condensed Financial Statements.

Sale of U.S. operations of Moneris Solutions Corporation

On November 10, 2016, our payment processing joint venture with Bank of Montreal, Moneris Solutions Corporation (Moneris), signed a Purchase and Sale agreement to sell its U.S. operations to Vantiv, Inc. The transaction closed on December 21, 2016. As a result, we recorded our share of the gain which was \$212 million (before- and after-tax) in Non-interest income – Share of profit in joint ventures and associates. For further details, refer to Note 6 of our Condensed Financial Statements.

Financial performance

Overview

Q2 2017 vs. Q2 2016

Net income of \$2,809 million was up \$236 million or 9% from a year ago. Diluted earnings per share (EPS) of \$1.85 was up \$0.19 or 11% and return on common equity (ROE) of 17.2% was up 100 bps from 16.2% last year. Our Common Equity Tier 1 (CET1) ratio was 10.6%, up 30 bps from a year ago.

Our results were driven by strong earnings in Capital Markets, Investor & Treasury Services and Wealth Management, and solid earnings in Personal & Commercial Banking, partially offset by lower results in Insurance.

Capital Markets earnings were up largely driven by higher results in Corporate and Investment Banking and Global Markets reflecting increased client activity, driven by improved market conditions, and lower PCL. These factors were partially offset by higher costs largely reflecting increased variable compensation on improved results, lower results in Other and a higher effective tax rate.

Investor & Treasury Services earnings increased primarily due to higher funding and liquidity results reflecting volatility in interest and foreign exchange rates, and tightening credit spreads.

Wealth Management results increased primarily due to growth in average fee-based client assets which benefited from favourable equity markets, and higher net interest income reflecting volume growth and the impact from higher U.S. interest rates. These factors were partially offset by higher variable compensation on improved results, and higher costs in support of business growth.

Personal & Commercial Banking results were higher mainly reflecting volume growth of 7% partially offset by lower spreads, as well as higher fee-based revenue and lower PCL in Canada. These factors were partially offset by higher costs in support of business growth.

Insurance earnings were down largely reflecting the impact from the sale of our home and auto insurance manufacturing business which was completed in July 2016. In addition, the prior year included a tax recovery. These factors were partially offset by higher investment-related gains and improved claims experience in both Canadian and International Insurance.

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

Q2 2017 vs. Q1 2017

Net income of \$2,809 million decreased \$218 million or 7% from the prior quarter. Diluted EPS was down \$0.12 or 6% and ROE was down 80 bps from 18.0% last quarter. Our CET1 ratio was down 40 bps.

Excluding our share of the gain recorded in the prior quarter related to the sale of the U.S. operations of Moneris, which is a specified item and is described further below, net income was down \$6 million from the prior quarter, diluted EPS was up \$0.02 or 1% and ROE was up 50 bps. Both our diluted EPS and ROE were positively impacted by our share repurchases in the current quarter. For further details, refer to the Capital management section.

Our results were mainly driven by lower net trading revenue in Capital Markets largely in Europe and the U.S. and the negative impact of fewer days in the quarter. Lower transaction revenue in Wealth Management and decreased funding and liquidity earnings and lower results from foreign exchange market execution compared to strong levels last quarter in Investor & Treasury Services also contributed to the decrease. These factors were largely offset by increased debt and equity origination activity and improved lending largely in the U.S. in Capital Markets, higher investment-related gains in Insurance, continued benefits from our efficiency management activities, and increased earnings from higher average fee-based client assets in Wealth Management.

Q2 2017 vs. Q2 2016 (Six months ended)

Net income of \$5,836 million increased \$816 million or 16% from a year ago. Six month diluted EPS of \$3.82 was up \$0.57 or 18% and ROE of 17.7% was up 190 bps.

Excluding our share of the gain on sale in the prior quarter as described below, net income increased \$604 million or 12% from the prior year, and diluted EPS was up \$0.43 or 13%. Our results reflected increased earnings in Personal & Commercial Banking, Capital Markets, Wealth Management and Investor & Treasury Services, partially offset by lower results in Insurance.

Excluding the specified item as noted above, Personal & Commercial Banking earnings increased largely due to volume growth of 6% partially offset by lower spreads, higher fee-based revenue and lower PCL. These factors were partially offset by higher costs in support of business growth.

Capital Markets results were up mainly driven by lower PCL and higher results in Corporate and Investment Banking and Global Markets reflecting increased client activity driven by improved market conditions. These factors were partially offset by higher variable compensation on improved results, lower results in Other and a higher effective tax rate.

Wealth Management earnings increased primarily reflecting higher average fee-based client assets which benefited from favourable equity markets, and higher net interest income on volume growth and the impact from higher U.S. interest rates. These factors were partially offset by higher variable compensation on improved results and higher costs in support of business growth.

Investor & Treasury Services results increased largely due to higher funding and liquidity earnings reflecting market volatility and tightening credit spreads, and increased results from foreign exchange market execution driven by higher client activity.

Insurance earnings were down primarily reflecting the impact from the sale of our home and auto insurance manufacturing business. In addition, the prior year included a tax recovery. These factors were partially offset by improved claims experience and higher investment-related gains.

Specified item

For the three months ended January 31, 2017 and six months ended April 30, 2017, our results were impacted by our share of a gain of \$212 million (before- and after-tax) related to the sale of the U.S. operations of Moneris. Results excluding this specified item are non-GAAP measures. For further details, including a reconciliation, refer to the Key performance and non-GAAP measures section.

Impact of foreign currency translation

Our foreign currency-denominated results are impacted by exchange rate fluctuations. Revenue, PCL, insurance policyholder benefits, claims and acquisition expense (PBCAE), non-interest expense and net income denominated in foreign currency are translated at the average rate of exchange for the period.

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

(Millions of Canadian dollars, except per share amounts)	For the three months ended		For the six months ended
	Q2 2017 vs. Q2 2016	Q2 2017 vs. Q1 2017	Q2 2017 vs. Q2 2016
Increase (decrease):			
Total revenue	\$ 40	\$ 40	\$ (164)
PCL	1	–	(2)
PBCAE	(13)	4	(57)
Non-interest expense	14	23	(133)
Income taxes	8	6	2
Net income	30	7	26
Impact on EPS			
Basic	\$ 0.02	\$ 0.01	\$ 0.02
Diluted	0.02	0.01	0.02

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

(Average foreign currency equivalent of C\$1.00) (1)	For the three months ended			For the six months ended	
	April 30 2017	January 31 2017	April 30 2016	April 30 2017	April 30 2016
U.S. dollar	0.746	0.752	0.768	0.749	0.748
British pound	0.590	0.603	0.537	0.597	0.516
Euro	0.696	0.707	0.684	0.701	0.680

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

Total revenue

(Millions of Canadian dollars, except percentage amounts)	For the three months ended			For the six months ended	
	April 30 2017	January 31 2017	April 30 2016	April 30 2017	April 30 2016
Interest income	\$ 6,491	\$ 6,459	\$ 6,001	\$ 12,950	\$ 12,057
Interest expense	2,293	2,135	1,976	4,428	3,836
Net interest income	\$ 4,198	\$ 4,324	\$ 4,025	\$ 8,522	\$ 8,221
Net interest margin (on average earning assets)	1.73%	1.73%	1.70%	1.73%	1.71%
Investments (1)	\$ 2,267	\$ 2,272	\$ 2,086	\$ 4,539	\$ 4,226
Insurance (2)	1,448	497	1,351	1,945	2,510
Trading	181	263	181	444	271
Banking (3)	1,272	1,257	1,344	2,529	2,436
Underwriting and other advisory	590	468	469	1,058	843
Other (4)	354	465	70	819	378
Non-interest income	\$ 6,112	\$ 5,222	\$ 5,501	\$ 11,334	\$ 10,664
Total revenue	\$ 10,310	\$ 9,546	\$ 9,526	\$ 19,856	\$ 18,885
Additional information					
Total trading revenue					
Net interest income	\$ 631	\$ 669	\$ 597	\$ 1,300	\$ 1,235
Non-interest income	181	263	181	444	271
Total trading revenue	\$ 812	\$ 932	\$ 778	\$ 1,744	\$ 1,506

(1) Includes securities brokerage commissions, investment management and custodial fees, and mutual fund revenue.

(2) Includes premiums and investment and fee income. Investment income includes the change in fair value of investments backing policyholder liabilities and is largely offset in PBCAE.

(3) Includes service charges, foreign exchange revenue other than trading, card service revenue and credit fees.

(4) Includes other non-interest income, net gain (loss) on available-for-sale (AFS) securities and share of profit in joint ventures and associates.

Q2 2017 vs. Q2 2016

Total revenue increased \$784 million or 8% from last year. The impact of foreign exchange translation this quarter increased our total revenue by \$40 million.

Net interest income increased \$173 million or 4%, mainly due to volume growth in both Canadian Banking and Wealth Management, and the impact of higher U.S. interest rates. These factors were partially offset by lower spreads in Canada.

Net interest margin was up 3 bps compared to last year largely reflecting the impact of higher U.S. interest rates in Wealth Management. This was partially offset by a decrease in our higher-yielding acquired credit-impaired loan portfolio, also in Wealth Management, and the continued low interest rate environment driving spread compression in Canadian Banking.

Investments revenue increased \$181 million or 9%, mainly reflecting higher average fee-based client assets due to capital appreciation and net sales, and higher fee-based revenue in Canadian Banking primarily attributable to higher mutual fund distribution fees.

Insurance revenue increased \$97 million or 7%, mainly reflecting the change in fair value of investments backing our policyholder liabilities and the impact of restructured international life contract, both of which are largely offset in PBCAE, and business growth in Canadian insurance. These factors were partially offset by lower premiums reflecting the impact of the sale of our home and auto insurance manufacturing business.

Trading revenue in Non-interest income was flat compared to the prior year. Total trading revenue of \$812 million, which comprises trading-related revenue recorded in Net interest income and Non-interest income, was up \$34 million or 4%, mainly due to increased equity trading revenue in Europe, and the impact of foreign exchange translation. These factors were partially offset by lower fixed income trading revenue largely in Canada and Europe.

Banking revenue decreased \$72 million or 5% as the prior year included the impact of foreign exchange translation on certain AFS securities which was offset in Other revenue. This was partially offset by higher loan syndication and mergers and acquisition (M&A) activity in the current quarter.

Underwriting and other advisory revenue increased \$121 million or 26%, largely reflecting increased equity and debt origination activity primarily in the U.S. and the impact of foreign exchange translation.

Other revenue increased \$284 million from last year, as the prior year included the change in fair value of certain derivatives used to economically hedge the AFS securities noted above. Higher funding and liquidity revenue in the current quarter reflecting market volatility and tightening credit spreads also contributed to the increase.

Q2 2017 vs. Q1 2017

Total revenue increased \$764 million or 8% from the prior quarter. Excluding our share of the gain recorded in the prior quarter related to the sale of the U.S. operations of Moneris of \$212 million (before- and after-tax), total revenue increased \$976 million or 10% primarily due to the change in fair value of investments backing our policyholder liabilities, largely offset in PBCAE as well as increased debt and equity origination activity and improved lending largely in the U.S. These factors were partly offset by lower fixed income trading revenue, lower funding and liquidity earnings, and lower revenue from foreign exchange market execution.

Q2 2017 vs. Q2 2016 (Six months ended)

Total revenue increased \$971 million or 5%. Excluding our share of the gain related to the sale of the U.S. operations of Moneris as noted above, total revenue of \$19,644 million increased \$759 million or 4%, primarily reflecting higher average fee-based client assets which benefited from favourable equity markets, higher net interest income on volume growth in Wealth Management and Canadian Banking, as well as the impact from higher U.S. interest rates. Increased debt and equity origination activity primarily in the U.S., and higher funding and liquidity revenue reflecting market volatility and tightening credit spreads also contributed to the increase. These factors were partially offset by the change in fair value of investments backing our policyholder liabilities, largely offset in PBCAE, and lower premiums reflecting the impact of the sale of our home and auto insurance manufacturing business. In addition, foreign exchange translation decreased revenue by \$164 million.

Revenue excluding the specified item noted above is a non-GAAP measure. For further details, including a reconciliation, refer to the Key performance and non-GAAP measures section.

Provision for credit losses (PCL)

Q2 2017 vs. Q2 2016

Total PCL of \$302 million decreased \$158 million or 34% from a year ago, and the total PCL ratio of 23 bps improved 13 bps, mainly due to lower provisions in Capital Markets and Personal & Commercial Banking, partially offset by higher provisions in Wealth Management. In addition, the prior year included a \$50 million increase in PCL for loans not yet identified as impaired.

Q2 2017 vs. Q1 2017

Total PCL increased \$8 million or 3% as compared to prior quarter, and the total PCL ratio of 23 bps increased 1 bp, mainly due to higher provisions in Personal & Commercial Banking and Wealth Management. These factors were partially offset by lower provisions in Capital Markets.

Q2 2017 vs. Q2 2016 (Six months ended)

Total PCL of \$596 million decreased \$274 million or 31%, and the total PCL ratio of 22 bps, improved 11 bps from the prior year, mainly due to lower provisions in Capital Markets and Personal & Commercial Banking, partially offset by higher provisions in Wealth Management. In addition, the prior year included a \$50 million increase in PCL for loans not yet identified as impaired.

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

Insurance policyholder benefits, claims and acquisition expense

Q2 2017 vs. Q2 2016

PBCAE of \$1,090 million increased \$102 million or 10% from a year ago, primarily reflecting the change in fair value of investments backing our policyholder liabilities and the impact of restructured international life contracts, both of which are largely offset in revenue, and business growth. These factors were partially offset by the impact from the sale of our home and auto insurance manufacturing business, higher investment-related gains, and improved claims experience in both Canadian and International Insurance.

Q2 2017 vs. Q1 2017

PBCAE increased \$907 million from the prior quarter, mainly due to the change in fair value of investments backing our policyholder liabilities, largely offset in revenue.

Q2 2017 vs. Q2 2016 (Six months ended)

PBCAE of \$1,273 million decreased \$544 million or 30% from the prior year, mainly reflecting the change in fair value of investments backing our policyholder liabilities, largely offset in revenue, the impact of the sale of our home and auto insurance manufacturing business, and lower net claims costs mainly in International Insurance. These factors were partially offset by higher PBCAE due to the impact of restructured international life contracts, largely offset in revenue.

Non-interest expense

(Millions of Canadian dollars, except percentage amounts)	For the three months ended			For the six months ended	
	April 30 2017	January 31 2017	April 30 2016	April 30 2017	April 30 2016
Salaries	\$ 1,449	\$ 1,441	\$ 1,445	\$ 2,890	\$ 2,937
Variable compensation	1,229	1,215	1,046	2,444	2,120
Benefits and retention compensation	465	468	430	933	894
Share-based compensation	98	139	93	237	139
Human resources	\$ 3,241	\$ 3,263	\$ 3,014	\$ 6,504	\$ 6,090
Equipment	344	356	358	700	714
Occupancy	404	399	382	803	775
Communications	241	221	224	462	427
Professional fees	265	255	247	520	487
Amortization of other intangibles	251	252	229	503	463
Other	483	469	433	952	891
Non-interest expense	\$ 5,229	\$ 5,215	\$ 4,887	\$ 10,444	\$ 9,847
Efficiency ratio (1)	50.7%	54.6%	51.3%	52.6%	52.1%
Efficiency ratio adjusted (2)	52.6%	53.1%	52.5%	52.9%	52.9%

(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, and our share of the Q1 2017 gain related to the sale of the U.S. operations of Moneris of \$212 million (before- and after-tax). These are non-GAAP measures. For further details, refer to the Key performance and non-GAAP measures section.

Q2 2017 vs. Q2 2016

Non-interest expense increased \$342 million or 7%, largely due to higher costs in support of business growth, higher variable compensation in Wealth Management and Capital Markets on improved results, higher legal and severance costs, and the impact of foreign exchange translation of \$14 million. These factors were partially offset by continuing benefits from our efficiency management activities.

Our efficiency ratio of 50.7% decreased 60 bps from 51.3% last year. Excluding the change in fair value of investments backing our policyholder liabilities, our efficiency ratio of 52.6% increased 10 bps from 52.5% last year due to higher costs in support of business growth, higher legal and severance costs and higher regulatory compliance costs. These factors were partially offset by continued benefits from our efficiency management activities, including lower staff levels.

Q2 2017 vs. Q1 2017

Non-interest expense increased \$14 million, mainly driven by higher legal and severance costs, higher costs in support of business growth and higher variable compensation in Capital Markets on improved results. In addition, the prior quarter included litigation recoveries in Capital Markets. These factors were largely offset by the impact of fewer days in the quarter and continuing benefits from our efficiency management activities.

Our efficiency ratio of 50.7% decreased 390 bps from 54.6% last quarter. Excluding the change in fair value of investments backing our policyholder liabilities and our share of the gain recorded in the prior quarter related to the sale of the U.S. operations of Moneris noted above, our efficiency ratio decreased 50 bps from last quarter, largely driven by continued benefits from our efficiency management activities.

Q2 2017 vs. Q2 2016 (Six months ended)

Non-interest expense increased \$597 million or 6% mainly due to higher variable compensation in Capital Markets and Wealth Management on improved results, higher costs in support of business growth and higher legal and severance costs. An impairment related to properties held for sale and higher staff costs in Caribbean Banking also contributed to the increase. These factors were partially offset by the impact of foreign exchange translation of \$133 million and continuing benefits from our efficiency management activities.

Our efficiency ratio of 52.6% increased 50 bps from 52.1% last year. Excluding the change in fair value of investments backing our policyholder liabilities and our share of the gain related to the sale of the U.S. operations of Moneris noted above, our efficiency ratio of 52.9% remained unchanged from last year.

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

Income taxes

(Millions of Canadian dollars, except percentage amounts)	For the three months ended			For the six months ended	
	April 30 2017	January 31 2017	April 30 2016	April 30 2017	April 30 2016
Income taxes	\$ 880	\$ 827	\$ 618	\$ 1,707	\$ 1,331
Income before income taxes	\$ 3,689	\$ 3,854	\$ 3,191	\$ 7,543	\$ 6,351
Canadian statutory income tax rate (1)	26.5%	26.5%	26.5%	26.5%	26.5%
Lower average tax rate applicable to subsidiaries	(1.9)%	(3.5)%	(2.3)%	(2.7)%	(1.9)%
Tax-exempt income from securities	(2.1)%	(2.1)%	(3.9)%	(2.1)%	(3.9)%
Tax rate change	–%	(0.2)%	–%	(0.1)%	–%
Effect of previously unrecognized tax loss, tax credit or temporary differences	–%	–%	(0.8)%	–%	(0.4)%
Other	1.4%	0.8%	(0.1)%	1.0%	0.7%
Effective income tax rate	23.9%	21.5%	19.4%	22.6%	21.0%

(1) Blended Federal and Provincial statutory income tax rate.

Q2 2017 vs. Q2 2016

Income tax expense increased \$262 million or 42% from last year due to higher income before income taxes. The effective income tax rate of 23.9% increased 450 bps due to lower tax-exempt income from securities, and higher income in higher tax-rate jurisdictions. In addition, the prior year included a tax recovery in Insurance.

Q2 2017 vs. Q1 2017

Income tax expense increased \$53 million from last quarter, despite lower income before income taxes. The effective income tax rate of 23.9% increased 240 bps from 21.5% in the last quarter. Excluding our share of the gain recorded in the prior quarter related to the sale of the U.S. operations of Moneris of \$212 million (before- and after-tax), the effective income tax rate of 23.9% increased 120 bps due to higher income in higher tax-rate jurisdictions.

Q2 2017 vs. Q2 2016 (Six months ended)

Income tax expense increased \$376 million or 28% from the prior year, and the effective tax rate of 22.6% increased 160 bps. Excluding our share of the gain related to the sale of the U.S. operations of Moneris as noted above, the effective income tax rate of 23.3% increased 230 bps from the prior year, due to lower tax-exempt income from securities and a tax recovery in Insurance in the prior year.

The effective income tax rate excluding the specified item above is a non-GAAP measure. For further details, including a reconciliation, refer to the Key performance and non-GAAP measures section.

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 and remain largely unchanged from October 31, 2016. For further details on attributed capital, refer to the Capital Management section.

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 2016 Annual Report.

Key performance and non-GAAP measures

Performance measures

Return on common equity (ROE)

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 2016 Annual Report.

The following table provides a summary of our ROE calculations:

(Millions of Canadian dollars, except percentage amounts)	For the three months ended							January 31	April 30
	April 30							2017	2016
	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets	Corporate Support	Total	Total	Total
Net income available to common shareholders	\$ 1,338	\$ 415	\$ 164	\$ 188	\$ 646	\$ (27)	\$ 2,724	\$ 2,940	\$ 2,486
Total average common equity (1), (2)	19,550	13,700	1,600	3,150	18,700	8,100	64,800	64,650	62,400
ROE (3)	28.0%	12.4%	41.5%	24.6%	14.2%	n.m.	17.2%	18.0%	16.2%

(Millions of Canadian dollars, except percentage amounts)	For the six months ended							April 30
	April 30							2016
	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets	Corporate Support	Total	Total
Net income available to common shareholders	\$ 2,905	\$ 829	\$ 296	\$ 398	\$ 1,286	\$ (50)	\$ 5,664	\$ 4,852
Total average common equity (1), (2)	19,450	13,550	1,600	3,250	18,900	7,950	64,700	61,950
ROE (3)	30.1%	12.3%	37.6%	24.9%	13.7%	n.m.	17.7%	15.8%

(1) Average common equity represents rounded figures.

(2) The amounts for the segments are referred to as attributed capital. Effective the first quarter of 2017, we increased our capital attribution rate to better align with higher regulatory capital requirements.

(3) ROE is based on actual balances of average common equity before rounding.

n.m. not meaningful

Non-GAAP measures

We believe that certain non-GAAP measures described below are more reflective of our ongoing operating results, and provide readers with a better understanding of management's perspective on our performance. These measures enhance the comparability of our financial performance for the three and six months ended April 30, 2017 with the corresponding periods in the prior year and the three months ended January 31, 2017 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. Effective the first quarter of 2017, we revised our cost of equity to 8.5% from 9% in 2016, largely as a result of lower long-term interest rates.

The following table provides a summary of our Economic profit:

(Millions of Canadian dollars)	For the three months ended							January 31	April 30
	April 30							2017	2016
	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets	Corporate Support	Total	Total	Total
Net income	\$ 1,360	\$ 431	\$ 166	\$ 193	\$ 668	\$ (9)	\$ 2,809	\$ 3,027	\$ 2,573
add: Non-controlling interests	1	–	–	(1)	–	(8)	(8)	(12)	(13)
After-tax effect of amortization of other intangibles	3	44	–	4	–	–	51	56	52
Adjusted net income (loss)	\$ 1,364	\$ 475	\$ 166	\$ 196	\$ 668	\$ (17)	\$ 2,852	\$ 3,071	\$ 2,612
less: Capital charge	429	300	35	69	410	177	1,420	1,460	1,455
Economic profit (loss)	\$ 935	\$ 175	\$ 131	\$ 127	\$ 258	\$ (194)	\$ 1,432	\$ 1,611	\$ 1,157

(Millions of Canadian dollars)	For the six months ended							April 30 2016
	April 30 2017							
	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets	Corporate Support	Total	
Net income	\$ 2,952	\$ 861	\$ 300	\$ 407	\$1,330	\$ (14)	\$ 5,836	\$ 5,020
add: Non-controlling interests	(2)	–	–	(1)	–	(17)	(20)	(34)
After-tax effect of amortization of other intangibles	6	93	–	8	–	–	107	108
Adjusted net income (loss)	\$ 2,956	\$ 954	\$ 300	\$ 414	\$1,330	\$ (31)	\$ 5,923	\$ 5,094
less: Capital charge	866	603	70	144	842	355	2,880	2,906
Economic profit (loss)	\$ 2,090	\$ 351	\$ 230	\$ 270	\$ 488	\$ (386)	\$ 3,043	\$ 2,188

Results excluding specified item

There were no specified items in the current period. Our results for the three months ended January 31, 2017 and six months ended April 30, 2017 were impacted by the following specified item:

- 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 Personal & Commercial Banking.

The following tables provide calculations of our consolidated and business segment results and measures excluding this specified item:

Consolidated results

(Millions of Canadian dollars, except per share and percentage amounts)	For the three months ended (1)			For the six months ended (1)		
	January 31 2017			April 30 2017		
	As reported	Item excluded Gain related to the sale by Moneris (2)	Adjusted	As reported	Item excluded Gain related to the sale by Moneris (2)	Adjusted
Continuing operations						
Total revenue	\$ 9,546	\$ (212)	\$ 9,334	\$ 19,856	\$ (212)	\$ 19,644
PCL	294	–	294	596	–	596
PBCAE	183	–	183	1,273	–	1,273
Non-interest expense	5,215	–	5,215	10,444	–	10,444
Net income before income taxes	\$ 3,854	\$ (212)	\$ 3,642	\$ 7,543	\$ (212)	\$ 7,331
Income taxes	827	–	827	1,707	–	1,707
Net income	\$ 3,027	\$ (212)	\$ 2,815	\$ 5,836	\$ (212)	\$ 5,624
Net income available to common shareholders	\$ 2,940	\$ (212)	\$ 2,728	\$ 5,664	\$ (212)	\$ 5,452
Average number of common shares (thousands)	1,484,262		1,484,262	1,476,273		1,476,273
Basic earnings per share (in dollars)	\$ 1.98	\$ (0.14)	\$ 1.84	\$ 3.84	\$ (0.14)	\$ 3.70
Average number of diluted common shares (thousands)	1,492,350		1,492,350	1,484,332		1,484,332
Diluted earnings per share (in dollars)	\$ 1.97	\$ (0.14)	\$ 1.83	\$ 3.82	\$ (0.14)	\$ 3.68
Average common equity	\$ 64,650		\$ 64,650	\$ 64,700		\$ 64,700
ROE (3)	18.0%		16.7%	17.7%		17.0%
Effective tax rate	21.5%		22.7%	22.6%		23.3%

(1) There were no specified items for the three months ended April 30, 2017 or April 30, 2016 or for the six months ended April 30, 2016.

(2) Includes foreign currency translation.

(3) ROE is based on actual balances of average common equity before rounding.

Personal & Commercial Banking

(Millions of Canadian dollars, except per share and percentage amounts)	For the three months ended (1)			For the six months ended (1)		
	January 31 2017			April 30 2017		
	As reported	Item excluded		As reported	Item excluded	
Gain related to the sale by Moneris (2)		Adjusted	Gain related to the sale by Moneris (2)		Adjusted	
Total revenue	\$ 4,030	\$ (212)	\$ 3,818	\$ 7,780	\$ (212)	\$ 7,568
PCL	249	–	249	511	–	511
Non-interest expense	1,723	–	1,723	3,384	–	3,384
Net income before income taxes	\$ 2,058	\$ (212)	\$ 1,846	\$ 3,885	\$ (212)	\$ 3,673
Net income	\$ 1,592	\$ (212)	\$ 1,380	\$ 2,952	\$ (212)	\$ 2,740
Selected balances and other information						
Non-interest expense	\$ 1,723	\$ –	\$ 1,723	\$ 3,384	\$ –	\$ 3,384
Total revenue	4,030	(212)	3,818	7,780	(212)	7,568
Efficiency ratio	42.8%		45.1%	43.5%		44.7%
Revenue growth rate	9.4%		3.7%	6.3%		3.4%
Non-interest expense growth rate	2.8%		2.8%	2.9%		2.9%
Operating leverage	6.6%		0.9%	3.4%		0.5%

(1) There were no specified items for the three months ended April 30, 2017 or April 30, 2016 or for the six months ended April 30, 2016.

(2) Includes foreign currency translation.

Canadian Banking

(Millions of Canadian dollars, except per share and percentage amounts)	For the three months ended (1)			For the six months ended (1)		
	January 31 2017			April 30 2017		
	As reported	Item excluded		As reported	Item excluded	
Gain related to the sale by Moneris (2)		Adjusted	Gain related to the sale by Moneris (2)		Adjusted	
Total revenue	\$ 3,778	\$ (212)	\$ 3,566	\$ 7,288	\$ (212)	\$ 7,076
PCL	250	–	250	506	–	506
Non-interest expense	1,514	–	1,514	2,993	–	2,993
Net income before income taxes	\$ 2,014	\$ (212)	\$ 1,802	\$ 3,789	\$ (212)	\$ 3,577
Net income	\$ 1,546	\$ (212)	\$ 1,334	\$ 2,862	\$ (212)	\$ 2,650
Selected balances and other information						
Non-interest expense	\$ 1,514	\$ –	\$ 1,514	\$ 2,993	\$ –	\$ 2,993
Total revenue	3,778	(212)	3,566	7,288	(212)	7,076
Efficiency ratio	40.1%		42.5%	41.1%		42.3%
Revenue growth rate	10.4%		4.2%	7.1%		4.0%
Non-interest expense growth rate	1.3%		1.3%	2.2%		2.2%
Operating leverage	9.1%		2.9%	4.9%		1.8%

(1) There were no specified items for the three months ended April 30, 2017 or April 30, 2016 or for the six months ended April 30, 2016.

(2) Includes foreign currency translation.

Efficiency ratio excluding the change in fair value of investments in Insurance and specified item

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. In addition, revenue for the three months ended January 31, 2017 and six months ended April 30, 2017 were impacted by the specified item noted above.

The following tables provide calculations of our consolidated efficiency ratio excluding the change in fair value of investments backing our policyholder liabilities and the specified item:

(Millions of Canadian dollars, except per share and percentage amounts)	For the three months ended									
	April 30 2017			January 31 2017				April 30 2016		
	As reported	Item excluded		As reported	Items excluded			As reported	Item excluded	
		Change in fair value of investments backing policyholder liabilities	Adjusted		Change in fair value of investments backing policyholder liabilities	Gain related to the sale by Moneris	Adjusted		Change in fair value of investments backing policyholder liabilities	Adjusted
Continuing operations										
Total revenue	\$ 10,310	\$ (369)	\$ 9,941	\$ 9,546	\$ 481	\$ (212)	\$ 9,815	\$ 9,526	\$ (225)	\$ 9,301
Non-interest expense	5,229	–	5,229	5,215	–	–	5,215	4,887	–	4,887
Efficiency ratio	50.7%		52.6%	54.6%			53.1%	51.3%		52.5%

(Millions of Canadian dollars, except per share and percentage amounts)	For the six months ended							
	April 30 2017				April 30 2016			
	Items excluded				Item excluded			
	As reported	Change in fair value of investments backing policyholder liabilities	Gain related to the sale by Moneris	Adjusted	As reported	Change in fair value of investments backing policyholder liabilities	Adjusted	Adjusted
Continuing operations								
Total revenue	\$ 19,856	\$ 112	\$ (212)	\$ 19,756	\$ 18,885	\$ (262)	\$ 18,623	
Non-interest expense	10,444	-	-	10,444	9,847	-	9,847	
Efficiency ratio	52.6%			52.9%	52.1%		52.9%	

Personal & Commercial Banking

(Millions of Canadian dollars, except number of and percentage amounts and as otherwise noted)	As at or for the three months ended			As at or for the six months ended	
	April 30 2017	January 31 2017	April 30 2016	April 30 2017	April 30 2016
Net interest income	\$ 2,597	\$ 2,649	\$ 2,527	\$ 5,246	\$ 5,099
Non-interest income	1,153	1,381	1,107	2,534	2,218
Total revenue	3,750	4,030	3,634	7,780	7,317
PCL	262	249	279	511	563
Non-interest expense	1,661	1,723	1,614	3,384	3,290
Income before income taxes	1,827	2,058	1,741	3,885	3,464
Net income	\$ 1,360	\$ 1,592	\$ 1,297	\$ 2,952	\$ 2,587
Revenue by business					
Canadian Banking	\$ 3,510	\$ 3,778	\$ 3,380	\$ 7,288	\$ 6,802
Caribbean & U.S. Banking	240	252	254	492	515
Selected average balance sheet information					
ROE	28.0%	32.1%	27.8%	30.1%	27.3%
Net interest margin (NIM) (1)	2.67%	2.66%	2.69%	2.66%	2.68%
Efficiency ratio (2)	44.3%	42.8%	44.4%	43.5%	45.0%
Efficiency ratio adjusted (2), (3)	n.a.	45.1%	n.a.	44.7%	n.a.
Operating leverage	0.3%	6.6%	4.9%	3.4%	2.6%
Operating leverage adjusted (3)	n.a.	0.9%	n.a.	0.5%	n.a.
Effective income tax rate	25.6%	22.6%	25.5%	24.0%	25.3%
Average total earning assets	\$ 398,900	\$ 395,500	\$ 382,200	\$ 397,200	\$ 382,300
Average loans and acceptances	398,200	394,600	380,600	396,400	380,500
Average deposits	342,400	336,700	314,600	339,500	314,600
AUA (4)	258,100	245,000	228,000	258,100	228,000
PCL on impaired loans as a % of average net loans and acceptances	0.27%	0.25%	0.30%	0.26%	0.30%

(1) NIM is calculated as Net interest income divided by Average total earning assets.

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

(3) Measures have been adjusted by excluding our share of the Q1 2017 gain related to the sale of the U.S. operations of Moneris of \$212 million (before- and after-tax). These are non-GAAP measures. For further details, refer to the Key performance and non-GAAP measures section.

(4) AUA represents period-end spot balances and includes securitized residential mortgages and credit card loans as at April 30, 2017 of \$18.9 billion and \$9.8 billion, respectively (January 31, 2017 – \$18.7 billion and \$8.4 billion; April 30, 2016 – \$19.8 billion and \$9.9 billion).

n.a. Not applicable

Financial performance

Q2 2017 vs. Q2 2016

Net income increased \$63 million or 5% from the prior year, mainly reflecting volume growth of 7% partially offset by lower spreads, higher fee-based revenue and lower PCL in Canada. These factors were partially offset by higher costs in support of business growth.

Total revenue increased \$116 million or 3% from the prior year.

Canadian Banking revenue increased \$130 million or 4% mainly due to volume growth of 7% partially offset by lower spreads and higher fee-based revenue primarily attributable to higher mutual fund distribution fees and higher card service revenue.

Caribbean & U.S. Banking revenue decreased \$14 million or 6% compared to last year mainly due to lower gains from foreign exchange and lower fee-based revenue.

Net interest margin was down 2 bps mainly due to the continued low interest rate environment and spread compression.

PCL decreased \$17 million or 6%, with the PCL ratio improving 3 bps, due to lower provisions in our Canadian lending portfolios. For further details, refer to Credit quality performance in the Credit Risk section.

Non-interest expense increased \$47 million or 3%, primarily attributable to higher costs in support of business growth, reflecting higher staff-related costs and increased technology spend in Canada. These factors were partially offset by continued benefits from our efficiency management activities.

Q2 2017 vs. Q1 2017

Net income decreased \$232 million or 15% from last quarter. Excluding our share of the gain recorded in the prior quarter related to the sale of the U.S. operations of Moneris of \$212 million (before- and after-tax), net income decreased \$20 million or 1%, largely reflecting the negative impact of fewer days in the quarter, and higher PCL. These factors were partially offset by volume growth in Canada, and continued benefits from our efficiency management activities.

Net interest margin increased 1 bp.

Q2 2017 vs. Q2 2016 (Six months ended)

Net income increased \$365 million or 14%. Excluding our share of the gain related to the sale of the U.S. operations of Moneris as noted above, net income increased \$153 million or 6%, largely due to volume growth of 6% partially offset by lower spreads, higher fee-based revenue in Canada and lower PCL. These factors were partially offset by higher costs in support of business growth.

Total revenue increased \$463 million or 6%. Excluding our share of the gain noted above, revenue increased \$251 million or 3%, mainly due to volume growth of 6% across most businesses in Canada, partially offset by lower spreads, and higher fee-based revenue primarily attributable to higher mutual fund distribution fees and higher card service revenue.

PCL decreased \$52 million or 9%, and the PCL ratio improved 4 bps, mainly due to lower provisions in our Canadian lending portfolios, as well as higher recoveries and lower provisions in our Caribbean portfolios. For further details, refer to Credit quality performance in the Credit Risk section.

Non-interest expense increased \$94 million or 3% compared to last year mainly due to higher costs in support of business growth, reflecting higher staff-related costs and increased technology spend. An impairment related to properties held for sale in the Caribbean also contributed to the increase. These factors were partially offset by continued benefits from our efficiency management activities.

Results excluding the specified item noted above are non-GAAP measures. For further details, including a reconciliation, refer to the Key performance and non-GAAP measures section.

Canadian Banking

(Millions of Canadian dollars, except number of and percentage amounts and as otherwise noted)	As at or for the three months ended			As at or for the six months ended	
	April 30 2017	January 31 2017	April 30 2016	April 30 2017	April 30 2016
Net interest income	\$ 2,435	\$ 2,488	\$ 2,367	\$ 4,923	\$ 4,770
Non-interest income	1,075	1,290	1,013	2,365	2,032
Total revenue	3,510	3,778	3,380	7,288	6,802
PCL	256	250	273	506	539
Non-interest expense	1,479	1,514	1,434	2,993	2,929
Net income before income taxes	1,775	2,014	1,673	3,789	3,334
Net income	\$ 1,316	\$ 1,546	\$ 1,241	\$ 2,862	\$ 2,472
Revenue by business					
Personal Financial Services	\$ 1,966	\$ 2,015	\$ 1,908	\$ 3,981	\$ 3,840
Business Financial Services	812	820	773	1,632	1,565
Cards and Payment Solutions	732	943	699	1,675	1,397
Selected average balance sheet information					
ROE	32.9%	37.8%	32.9%	35.4%	32.3%
NIM (1)	2.62%	2.61%	2.64%	2.61%	2.63%
Efficiency ratio (2)	42.1%	40.1%	42.4%	41.1%	43.1%
Efficiency ratio adjusted (2),(3)	n.a.	42.5%	n.a.	42.3%	n.a.
Operating leverage	0.7%	9.1%	3.6%	4.9%	1.9%
Operating leverage adjusted (3)	n.a.	2.9%	n.a.	1.8%	n.a.
Effective income tax rate	25.9%	23.2%	25.8%	24.5%	25.9%
Average total earning assets	\$ 381,400	\$ 378,400	\$ 364,900	\$ 379,900	\$ 364,600
Average loans and acceptances	388,800	385,300	371,300	387,100	370,900
Average deposits	323,300	318,400	296,200	320,800	295,800
AUA (4)	249,200	236,700	218,800	249,200	218,800
PCL on impaired loans as a % of average net loans and acceptances	0.27%	0.26%	0.30%	0.26%	0.29%

(1) NIM is calculated as Net interest income divided by Average total earning assets.

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

(3) Measures have been adjusted by excluding our share of the Q1 2017 gain related to sale of the U.S. operations of Moneris of \$212 million (before- and after-tax). These are non-GAAP measures. For further details, refer to the Key performance and non-GAAP measures section.

(4) AUA represents period-end spot balances and includes securitized residential mortgages and credit card loans as at April 30, 2017 of \$18.9 billion and \$9.8 billion, respectively (January 31, 2017 – \$18.7 billion and \$8.4 billion; April 30, 2016 – \$19.8 billion and \$9.9 billion).

Financial performance

Q2 2017 vs. Q2 2016

Net income increased \$75 million or 6% compared to last year, largely reflecting volume growth of 7% partially offset by lower spreads, higher fee-based revenue and lower PCL. These factors were partially offset by higher costs in support of business growth.

Total revenue increased \$130 million or 4% from last year.

Personal Financial Services revenue increased \$58 million or 3%, mainly due to volume growth of 4%, which was partially offset by lower spreads. Higher fee-based revenue primarily attributable to higher mutual fund distribution fees also contributed to the increase.

Business Financial Services revenue increased \$39 million or 5%, mainly due to volume growth of 13%, partially offset by lower spreads.

Cards and Payment Solutions revenue increased \$33 million or 5%, mainly due to higher card service revenue and higher loan balances. These factors were partially offset by the impact of the sale of the U.S. operations of Moneris.

Net interest margin decreased 2 bps mainly due to the continued low interest rate environment and spread compression.

PCL decreased \$17 million, with the PCL ratio improving 3 bps, mostly due to lower provisions in our personal lending portfolio and lower write-offs in our credit cards portfolio. These factors were partially offset by higher provisions in our commercial lending portfolio. For further details, refer to Credit quality performance in the Credit Risk section.

Non-interest expense increased \$45 million or 3% mainly due to higher costs in support of business growth including higher staff-related costs and increased technology spend. These factors were partially offset by continued benefits from our efficiency management activities.

Q2 2017 vs. Q1 2017

Net income decreased \$230 million or 15% from last quarter. Excluding our share of the gain recorded in the prior quarter related to the sale of the U.S. operations of Moneris of \$212 million (before- and after-tax), net income decreased \$18 million or 1%, largely reflecting the negative impact of fewer days in the quarter and higher PCL. These factors were partially offset by volume growth and continued benefits from our efficiency management activities.

Net interest margin increased 1 bp.

Q2 2017 vs. Q2 2016 (six months ended)

Net income increased \$390 million or 16%. Excluding our share of the gain related to the sale of the U.S. operations of Moneris as noted above, net income increased \$178 million or 7%, largely due to volume growth of 6% partially offset by lower spreads, higher fee-based revenue and lower PCL. These factors were partially offset by higher costs in support of business growth.

Total revenue increased \$486 million or 7% compared to last year. Excluding our share of the gain as noted above, revenue increased \$274 million or 4%, reflecting volume growth of 6% across most businesses partially offset by lower spreads, and higher fee-based revenue primarily attributable to higher mutual fund distribution fees and higher card service revenue.

PCL decreased \$33 million or 6%, and the PCL ratio improved 3 bps, mainly due to lower provisions in our personal and commercial lending portfolios. For further details, refer to Credit quality performance in the Credit Risk section.

Non-interest expense increased \$64 million or 2% mainly due to higher costs in support of business growth including increased technology spend. This factor was partially offset by continued benefits from our efficiency management activities.

Results excluding the specified item noted above are non-GAAP measures. For further details, including a reconciliation, refer to the Key performance and non-GAAP measures section.

Wealth Management

	As at or for the three months ended			As at or for the six months ended	
	April 30 2017	January 31 2017	April 30 2016	April 30 2017	April 30 2016
(Millions of Canadian dollars, except number of and percentage amounts and as otherwise noted)					
Net interest income	\$ 546	\$ 541	\$ 466	\$ 1,087	\$ 935
Non-interest income					
Fee-based revenue	1,371	1,351	1,232	2,722	2,502
Transactional and other revenue	510	539	482	1,049	830
Total revenue	2,427	2,431	2,180	4,858	4,267
PCL	15	13	7	28	12
Non-interest expense	1,838	1,855	1,670	3,693	3,348
Income before income taxes	574	563	503	1,137	907
Net income	\$ 431	\$ 430	\$ 386	\$ 861	\$ 689
Revenue by business					
Canadian Wealth Management	\$ 676	\$ 698	\$ 601	\$ 1,374	\$ 1,196
U.S. Wealth Management (including City National)	1,192	1,170	1,038	2,362	1,978
U.S. Wealth Management (including City National) (US\$ millions)	888	881	798	1,769	1,483
International Wealth Management	98	96	108	194	221
Global Asset Management	461	467	433	928	872
Selected average balance sheet information					
ROE	12.4%	12.2%	11.6%	12.3%	10.2%
NIM ⁽¹⁾	2.99%	2.82%	2.88%	2.90%	2.84%
Pre-tax margin ⁽²⁾	23.7%	23.2%	23.1%	23.4%	21.3%
Number of advisors ⁽³⁾	4,817	4,797	4,695	4,817	4,695
Average total earning assets	\$ 74,800	\$ 76,200	\$ 65,700	\$ 75,500	\$ 66,300
Average loans and acceptances	52,000	50,800	47,900	51,400	48,700
Average deposits	94,800	95,100	82,200	95,000	82,600
AUA ^{(4), (5)}	931,200	879,000	810,900	931,200	810,900
– U.S. Wealth Management (including City National) ⁽⁴⁾	427,100	395,000	362,600	427,100	362,600
– U.S. Wealth Management (including City National) (US\$ millions) ⁽⁴⁾	312,900	303,500	288,900	312,900	288,900
AUM ⁽⁴⁾	608,700	578,600	539,700	608,700	539,700
Average AUA ⁽⁵⁾	916,400	884,900	823,100	900,400	838,100
Average AUM	599,500	580,100	543,500	589,700	552,500

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		For the six months ended
	Q2 2017 vs. Q2 2016	Q2 2017 vs. Q1 2017	Q2 2017 vs. Q2 2016
Increase (decrease):			
Total revenue	\$ 24	\$ 14	\$ (43)
Non-interest expense	16	11	(45)
Net income	6	1	2
Percentage change in average US\$ equivalent of C\$1.00	(3)%	(1)%	–%
Percentage change in average British pound equivalent of C\$1.00	10%	(2)%	16%
Percentage change in average Euro equivalent of C\$1.00	2%	(2)%	3%

- (1) NIM is calculated as Net interest income divided by Average total earning assets.
(2) Pre-tax margin is defined as net income before income taxes divided by Total revenue.
(3) Represents investment advisors and financial consultants of our Canadian and U.S. full-service wealth businesses.
(4) Represents period-end spot balances.
(5) Amounts have been revised from those previously presented.

Financial performance**Q2 2017 vs. Q2 2016**

Net income increased \$45 million or 12% from a year ago, mainly due to increased earnings resulting from growth in average fee-based client assets which benefited from favourable equity markets, and higher net interest income reflecting volume growth and the impact from higher U.S. interest rates. These factors were partially offset by higher variable compensation on improved results, and higher costs in support of business growth.

Total revenue increased \$247 million or 11%.

Canadian Wealth Management revenue increased \$75 million or 12%, primarily due to higher average fee-based client assets, reflecting capital appreciation and net sales.

U.S. Wealth Management (including City National) revenue increased \$154 million or 15%. In U.S. dollars, revenue increased \$90 million or 11%, mainly due to volume growth and the impact from higher U.S. interest rates and higher average fee-based client assets reflecting capital appreciation and net sales.

International Wealth Management revenue decreased \$10 million or 9%, mainly due to the impact of foreign exchange translation.

Global Asset Management revenue increased \$28 million or 6%, primarily due to higher average fee-based client assets under management reflecting capital appreciation.

PCL increased \$8 million mainly due to higher provisions related to U.S. Wealth Management (including City National).

Non-interest expense increased \$168 million or 10%, largely due to higher variable compensation on improved results, and higher costs in support of business growth.

Q2 2017 vs. Q1 2017

Net income was relatively unchanged from the prior quarter as increased earnings from higher average fee-based client assets were offset by lower transaction revenue.

Q2 2017 vs. Q2 2016 (Six months ended)

Net income increased \$172 million or 25% from a year ago, mainly due to higher average fee-based client assets which benefited from favourable equity markets, volume growth, and the impact from higher U.S. interest rates. These factors were partially offset by higher variable compensation on improved results, and higher costs in support of business growth.

Total revenue increased \$591 million or 14%, mainly due to higher average fee-based client assets reflecting capital appreciation, higher net interest income due to volume growth and the impact from higher U.S. interest rates, and increased transaction revenue.

PCL increased \$16 million largely reflecting higher provisions related to U.S. Wealth Management (including City National).

Non-interest expense increased \$345 million or 10%, largely due to higher variable compensation on improved results, and higher costs in support of business growth.

Insurance

	As at or for the three months ended			As at or for the six months ended	
	April 30 2017	January 31 2017	April 30 2016	April 30 2017	April 30 2016
(Millions of Canadian dollars, except percentage amounts and as otherwise noted)					
Non-interest income					
Net earned premiums	\$ 879	\$ 749	\$ 837	\$ 1,628	\$ 1,713
Investment income (1)	527	(353)	390	174	552
Fee income	42	101	124	143	245
Total revenue	1,448	497	1,351	1,945	2,510
Insurance policyholder benefits and claims (1)	1,021	130	933	1,151	1,701
Insurance policyholder acquisition expense	69	53	55	122	116
Non-interest expense	140	140	157	280	317
Income before income taxes	218	174	206	392	376
Net income	\$ 166	\$ 134	\$ 177	\$ 300	\$ 308
Revenue by business					
Canadian Insurance	\$ 978	\$ 20	\$ 894	\$ 998	\$ 1,641
International Insurance	470	477	457	947	869
Selected balances and other information					
ROE	41.5%	33.7%	44.3%	37.6%	38.3%
Premiums and deposits (2)	\$ 1,008	\$ 1,003	\$ 1,184	\$ 2,011	\$ 2,398
Fair value changes on investments backing policyholder liabilities (1)	369	(481)	225	(112)	262

Estimated impact of U.S. dollar and British pound translation on key income statement items (Millions of Canadian dollars, except percentage amounts)	For the three months ended		For the six months ended
	Q2 2017 vs. Q2 2016	Q2 2017 vs. Q1 2017	Q2 2017 vs. Q2 2016
Increase (decrease):			
Total revenue	\$ (15)	\$ 6	\$ (59)
PBCAE	(13)	–	(57)
Non-interest expense	–	4	–
Net income	(3)	2	(1)
Percentage change in average US\$ equivalent of C\$1.00	(3)%	(1)%	–%
Percentage change in average British pound equivalent of C\$1.00	10%	(2)%	16%

(1) Investment income can experience volatility arising from fluctuation of fair value through profit or loss (FVTPL) assets. The investments which support actuarial liabilities are predominantly fixed income assets designated as at FVTPL. Consequently, changes in the fair values of these assets are recorded in investment income in the consolidated statement 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 and claims.

(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

Q2 2017 vs. Q2 2016

Net income decreased \$11 million or 6% from a year ago, primarily reflecting the impact from the sale of our home and auto insurance manufacturing business. In addition, the prior year included a tax recovery. These factors were partially offset by higher investment-related gains and improved claims experience in both Canadian and International Insurance.

Total revenue increased \$97 million or 7% as compared to the prior year.

Canadian Insurance revenue increased \$84 million or 9%, mainly due to the change in fair value of investments backing our policyholder liabilities, largely offset in PBCAE, and business growth. These factors were partially offset by lower premiums reflecting the impact of the sale of our home and auto insurance manufacturing business.

International Insurance revenue increased \$13 million or 3%, mainly due to the impact of restructured international life contracts, largely offset in PBCAE. This factor was partially offset by the change in fair value of investments backing policyholder liabilities, largely offset in PBCAE, and the impact of foreign exchange translation.

PBCAE increased \$102 million or 10%, primarily reflecting the change in fair value of investments backing our policyholder liabilities and the impact of restructured international life contracts, both of which are largely offset in revenue, and business growth. These factors were partially offset by the impact from the sale of our home and auto insurance manufacturing business, higher investment-related gains, and improved claims experience in both Canadian and International Insurance.

Non-interest expense decreased \$17 million or 11%, mainly due to the impact from the sale of our home and auto insurance manufacturing business and benefits from our efficiency management activities.

Q2 2017 vs. Q1 2017

Net income increased \$32 million or 24% from the prior quarter largely due to higher investment-related gains.

Q2 2017 vs. Q2 2016 (Six months ended)

Net income decreased \$8 million or 3% from a year ago, primarily reflecting the impact from the sale of our home and auto insurance manufacturing business. In addition, the prior year included a tax recovery. These factors were partially offset by improved claims experience and higher investment-related gains.

Total revenue decreased \$565 million or 23% as compared to the prior year, mainly due to the change in fair value of investments backing our policyholder liabilities, largely offset in PBCAE, and lower premiums reflecting the impact of the sale of our home and auto insurance manufacturing business. These factors were partially offset by the impact of restructured international life contracts, largely offset in PBCAE, and higher investment-related gains.

PBCAE decreased \$544 million or 30%, mainly reflecting the change in fair value of investments backing our policyholder liabilities, largely offset in revenue, the impact of the sale of our home and auto insurance manufacturing business, and lower net claims costs mainly in International Insurance. These factors were partially offset by higher PBCAE due to the impact of restructured international life contracts, largely offset in revenue.

Non-interest expense decreased \$37 million or 12%, mainly due to lower costs reflecting the impact from the sale of our home and auto insurance manufacturing business and benefits from our efficiency management activities.

Investor & Treasury Services

(Millions of Canadian dollars, except percentage amounts)	As at or for the three months ended			As at or for the six months ended	
	April 30 2017	January 31 2017	April 30 2016	April 30 2017	April 30 2016
Net interest income	\$ 173	\$ 237	\$ 190	\$ 410	\$ 416
Non-interest income	435	394	350	829	674
Total revenue	608	631	540	1,239	1,090
Non-interest expense	355	350	352	705	713
Net income before income taxes	253	281	188	534	377
Net income	\$ 193	\$ 214	\$ 139	\$ 407	\$ 282
Selected average balance sheet information					
ROE	24.6%	25.1%	16.5%	24.9%	16.2%
Average deposits	\$ 127,900	\$ 128,500	\$ 138,100	\$ 128,200	\$ 145,000
Client deposits	52,900	52,500	53,900	52,700	53,700
Wholesale funding deposits	75,000	76,000	84,200	75,500	91,300
AUA (1)	4,111,400	3,797,000	3,617,700	4,111,400	3,617,700
Average AUA	3,978,100	3,774,100	3,627,000	3,874,400	3,747,000

(1) Represents period-end spot balances.

Q2 2017 vs. Q2 2016

Net income increased \$54 million or 39%, primarily due to higher funding and liquidity results reflecting volatility in interest and foreign exchange rates, and tightening credit spreads.

Total revenue increased \$68 million or 13%, mainly due to higher funding and liquidity revenue reflecting market volatility and tightening credit spreads, and increased revenue from foreign exchange market execution driven by higher client activity.

Non-interest expense increased \$3 million or 1%, mainly reflecting higher investment in technology, largely offset by continued benefits from our efficiency management activities.

Q2 2017 vs. Q1 2017

Net income decreased \$21 million or 10%, primarily driven by lower funding and liquidity earnings and lower results from foreign exchange market execution as compared to the strong levels last quarter.

Q2 2017 vs. Q2 2016 (Six months ended)

Net income increased \$125 million or 44%, largely due to higher funding and liquidity earnings reflecting market volatility and tightening credit spreads, and increased results from foreign exchange market execution driven by higher client activity.

Total revenue increased \$149 million or 14%, mainly due to the factors noted under Net income.

Non-interest expense decreased \$8 million or 1% due to the impact of foreign exchange translation of \$22 million and continued benefits from our efficiency management activities. These factors were partially offset by higher investment in technology.

Capital Markets

	As at or for the three months ended			As at or for the six months ended	
	April 30 2017	January 31 2017	April 30 2016	April 30 2017	April 30 2016
(Millions of Canadian dollars, except percentage amounts)					
Net interest income (1)	\$ 922	\$ 947	\$ 993	\$ 1,869	\$ 2,055
Non-interest income (1)	1,195	1,124	997	2,319	1,915
Total revenue (1)	2,117	2,071	1,990	4,188	3,970
PCL	24	32	123	56	243
Non-interest expense	1,173	1,125	1,080	2,298	2,155
Net income before income taxes	920	914	787	1,834	1,572
Net income	\$ 668	\$ 662	\$ 583	\$ 1,330	\$ 1,153
Revenue by business					
Corporate and Investment Banking	\$ 1,020	\$ 936	\$ 892	\$ 1,956	\$ 1,762
Global Markets	1,162	1,194	1,125	2,356	2,235
Other	(65)	(59)	(27)	(124)	(27)
Selected average balance sheet information					
ROE	14.2%	13.3%	12.1%	13.7%	12.2%
Average total assets	\$ 499,600	\$ 493,600	\$ 502,600	\$ 496,500	\$ 510,800
Average trading securities	95,000	98,900	100,700	96,900	104,800
Average loans and acceptances	83,600	83,800	89,600	83,700	89,700
Average deposits	59,900	58,700	62,200	59,300	62,600
PCL on impaired loans as a % of average net loans and acceptances	0.12%	0.15%	0.56%	0.13%	0.54%

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		For the six months ended
	Q2 2017 vs. Q2 2016	Q2 2017 vs. Q1 2017	Q2 2017 vs. Q2 2016
<i>Increase (decrease):</i>			
Total revenue	\$ 34	\$ 14	\$ (31)
Non-interest expense	9	7	(43)
Net income	19	5	13
Percentage change in average US\$ equivalent of C\$1.00	(3)%	(1)%	–%
Percentage change in average British pound equivalent of C\$1.00	10%	(2)%	16%
Percentage change in average Euro equivalent of C\$1.00	2%	(2)%	3%

(1) The taxable equivalent basis (teb) adjustment for the three months ended April 30, 2017 was \$97 million (January 31, 2017 – \$119 million, April 30, 2016 – \$203 million). For further discussion, refer to the How we measure and report our business segments section of our 2016 Annual Report.

Q2 2017 vs. Q2 2016

Net income increased \$85 million or 15%, primarily due to higher results in Corporate and Investment Banking and Global Markets reflecting increased client activity driven by improved market conditions, and lower PCL. These factors were partially offset by higher costs largely reflecting increased variable compensation on improved results, lower results in Other and a higher effective tax rate. For further details on our effective tax rate, refer to the Financial performance section.

Total revenue increased \$127 million or 6%.

Corporate and Investment Banking revenue increased \$128 million or 14%, mainly due to higher loan syndication and M&A activity in the U.S. Increased equity and debt origination activity primarily in the U.S. and the impact of foreign exchange translation also contributed to the increase.

Global Markets revenue increased \$37 million or 3%, primarily driven by increased debt and equity origination activity in the U.S., a gain from the disposition of a portion of our shares in a derivatives exchange and the impact of foreign exchange translation. These factors were partially offset by lower fixed income trading revenue largely in Canada and Europe.

Other revenue decreased \$38 million.

PCL of \$24 million decreased \$99 million or 80%, primarily due to lower provisions in the oil & gas sector. For further details, refer to the Credit quality performance section.

Non-interest expense increased \$93 million or 9%, largely due to higher variable compensation on improved results and higher regulatory compliance costs.

Q2 2017 vs. Q1 2017

Net income increased \$6 million or 1%, primarily due to increased debt and equity origination activity largely in the U.S., and higher foreign exchange, equity and commodities trading revenue mainly in Canada. Improved lending, largely in the U.S., and increased M&A activity, largely in Europe and Canada, also contributed to the increase. These factors were largely offset by lower fixed income trading revenue across all regions.

Q2 2017 vs. Q2 2016 (Six months ended)

Net income increased \$177 million or 15%, driven by lower PCL and higher results in Corporate and Investment Banking and Global Markets reflecting increased client activity driven by improved market conditions. These factors were partially offset by higher variable compensation on improved results, lower results in Other and a higher effective tax rate.

Total revenue increased \$218 million or 5%, mainly due to increased loan syndication activity primarily in the U.S. and higher fixed income trading revenue across most regions. Higher debt and equity origination activity largely in the U.S. also contributed to the increase. These factors were partially offset by lower equity and commodities trading revenue.

PCL of \$56 million decreased \$187 million from the prior year, primarily due to recoveries and lower provisions in the oil & gas sector, partially offset by a provision taken on one account in the real estate & related sector. For further details, refer to Credit quality performance in the Credit risk section.

Non-interest expense increased \$143 million or 7%, largely due to higher variable compensation on improved results and higher regulatory compliance costs.

Corporate Support

(Millions of Canadian dollars, except as otherwise noted)	For the three months ended			For the six months ended	
	April 30 2017	January 31 2017	April 30 2016	April 30 2017	April 30 2016
Net interest income (loss) ⁽¹⁾	\$ (40)	\$ (50)	\$ (151)	\$ (90)	\$ (284)
Non-interest income (loss) ⁽¹⁾	–	(64)	(18)	(64)	15
Total revenue ⁽¹⁾	(40)	(114)	(169)	(154)	(269)
PCL	1	–	51	1	52
Non-interest expense	62	22	14	84	24
Net income (loss) before income taxes ⁽¹⁾	(103)	(136)	(234)	(239)	(345)
Income taxes (recoveries) ⁽¹⁾	(94)	(131)	(225)	(225)	(346)
Net income (loss) ⁽²⁾	\$ (9)	\$ (5)	\$ (9)	\$ (14)	\$ 1

(1) Teb adjusted.

(2) Net income (loss) reflects income attributable to both shareholders and Non-Controlling Interests (NCI). Net income attributable to NCI for the three months ended April 30, 2017 was \$8 million (January 31, 2017 – \$9 million; April 30, 2016 – \$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 April 30, 2017 was \$97 million as compared to \$119 million in the prior quarter and \$203 million last year. For further discussion, refer to the How we measure and report our business segments section of our 2016 Annual Report.

In addition to the teb impacts noted above, the following identifies the other material items affecting the reported results in each period.

Q2 2017

Net loss was \$9 million, as asset/liability management activities were more than offset by higher legal and severance costs.

Q1 2017

Net loss was \$5 million.

Q2 2016

Net loss was \$9 million, mainly due to a \$50 million (\$37 million after-tax) increase in the provision for credit losses for loans not yet identified as impaired, which was mostly offset by asset/liability management activities.

Q2 2017 (Six months ended)

Net loss was \$14 million, largely due to higher legal and severance costs partially offset by asset/liability management activities.

Q2 2016 (Six months ended)

Net income was \$1 million, primarily reflecting asset/liability management activities, mostly offset by the increase in the provision for credit losses for loans not yet identified as impaired as noted above.

Results by geographic segment ⁽¹⁾

For geographic reporting, our segments are grouped into the following: Canada, U.S., and Other International. Transactions are primarily recorded in the location that best reflects the risk due to negative changes in economic conditions and prospects for growth due to positive economic changes. The following table summarizes our financial results by geographic region:

(Millions of Canadian dollars)	For the three months ended									For the six months ended					
	April 30 2017			January 31 2017			April 30 2016 ⁽²⁾			April 30 2017			April 30 2016 ⁽²⁾		
	Canada	U.S.	Other International	Canada	U.S.	Other International	Canada	U.S.	Other International	Canada	U.S.	Other International	Canada	U.S.	Other International
Total revenue	\$ 6,334	\$ 2,337	\$ 1,639	\$ 5,554	\$ 2,259	\$ 1,733	\$ 5,880	\$ 2,040	\$ 1,606	\$ 11,888	\$ 4,596	\$ 3,372	\$ 11,647	\$ 4,039	\$ 3,199
Net income	\$ 2,040	\$ 404	\$ 365	\$ 2,232	\$ 363	\$ 432	\$ 1,949	\$ 331	\$ 293	\$ 4,272	\$ 767	\$ 797	\$ 3,737	\$ 689	\$ 594

(1) For further details, refer to Note 30 of our audited 2016 Annual Consolidated Financial Statements.

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

Q2 2017 vs. Q2 2016

Net income in Canada was up \$91 million or 5% from the prior year, mainly due to volume growth and higher fee-based revenue in Canadian Banking, and higher average fee-based client assets in Wealth Management which benefited from favourable equity markets. In addition, the prior year included a \$50 million increase in PCL for loans not yet identified as impaired. These factors were partially offset by lower fixed income trading results in Capital Markets and higher costs in support of business growth.

U.S. net income increased \$73 million or 22% from the prior year, primarily reflecting higher loan syndication, M&A and equity and debt origination activity in Capital Markets, and higher average fee-based client assets in Wealth Management which benefited from favourable equity markets. Volume growth and the impact from higher U.S. interest rates in Wealth Management, and lower PCL also contributed to the increase. These factors were partially offset by higher variable compensation in Capital Markets on improved results. In addition, the prior year included a tax recovery in Insurance.

Other International net income was up \$72 million or 25% from the prior year, largely due to higher funding and liquidity results in Investor & Treasury Services reflecting volatility in interest rates, foreign exchange rates, and tightening credit spreads, increased equity trading revenue in Capital Markets, as well as, higher loan syndication and M&A activity, and continued benefits from our efficiency management activities.

Q2 2017 vs. Q1 2017

Net income in Canada was down \$192 million or 9% as the prior quarter included our share of the gain related to the sale of the U.S. operations of Moneris of \$212 million (before- and after-tax). Higher M&A and debt origination activity in Capital Markets and investment-related gains in Insurance were mostly offset by higher costs in Capital Markets due to higher variable compensation on improved results and higher PCL in Capital Markets and Personal & Commercial Banking. In addition, the prior quarter included a litigation recovery in Capital Markets.

U.S. net income increased \$41 million or 11% from the prior quarter, reflecting increased debt and equity origination activity and improved lending in Capital Markets and lower PCL. These factors were offset by lower equity and fixed income trading revenue in Capital Markets.

Other International net income was down \$67 million or 16% from the prior quarter, reflecting the impact of foreign exchange translation, and lower fixed income trading revenue in Capital Markets. These factors were partially offset by continued benefits from our efficiency management activities in Personal & Commercial Banking and higher M&A activity in Capital Markets.

Q2 2017 vs. Q2 2016 (Six months ended)

Net income in Canada was up \$535 million or 14% from the prior year, mainly due to higher volume growth, partially offset by lower spreads, higher fee-based revenue in Canadian Banking, and growth in average fee-based client assets in Wealth Management which benefited from favourable equity markets. Our share of the gain related to the sale of the U.S. operations of Moneris of \$212 million (before- and after-tax), and lower PCL in Capital Markets and Canadian Banking also contributed to the increase. These factors were partially offset by lower trading results in Capital Markets. In addition, the prior year included a \$50 million increase in PCL for loans not yet identified as impaired.

U.S. net income increased \$78 million or 11% from the prior year, reflecting higher average fee-based client assets in Wealth Management which benefited from favourable equity markets, volume growth, and the impact from higher U.S. interest rates. Increased loan syndication and debt and equity origination activity in Capital Markets, and lower PCL also contributed to the increase. These factors were partially offset by higher costs in support of business growth in Capital Markets and Wealth Management, and a higher effective tax rate. In addition, the prior year included a tax recovery in Insurance.

Other International net income was up \$203 million or 34% from the prior year, largely due to higher fixed income and equity trading revenue and continued benefits from our efficiency management activities, higher funding and liquidity results in Investor & Treasury Services reflecting volatility in interest and foreign exchange rates, and improved claims experience and higher investment-related gains in Insurance.

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⁾

(Millions of Canadian dollars, except per share and percentage amounts)	2017			2016			2015	
	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3
Net interest income	\$ 4,198	\$ 4,324	\$ 4,187	\$ 4,123	\$ 4,025	\$ 4,196	\$ 3,800	\$ 3,783
Non-interest income	6,112	5,222	5,078	6,132	5,501	5,163	4,219	5,045
Total revenue	\$ 10,310	\$ 9,546	\$ 9,265	\$ 10,255	\$ 9,526	\$ 9,359	\$ 8,019	\$ 8,828
PCL	302	294	358	318	460	410	275	270
PBCAE	1,090	183	397	1,210	988	829	292	656
Non-interest expense	5,229	5,215	5,198	5,091	4,887	4,960	4,647	4,635
Net income before income taxes	\$ 3,689	\$ 3,854	\$ 3,312	\$ 3,636	\$ 3,191	\$ 3,160	\$ 2,805	\$ 3,267
Income taxes	880	827	769	741	618	713	212	792
Net income	\$ 2,809	\$ 3,027	\$ 2,543	\$ 2,895	\$ 2,573	\$ 2,447	\$ 2,593	\$ 2,475
EPS – basic	\$ 1.86	\$ 1.98	\$ 1.66	\$ 1.88	\$ 1.67	\$ 1.59	\$ 1.74	\$ 1.66
– diluted	1.85	1.97	1.65	1.88	1.66	1.58	1.74	1.66
Segments – net income (loss)								
Personal & Commercial Banking	\$ 1,360	\$ 1,592	\$ 1,275	\$ 1,322	\$ 1,297	\$ 1,290	\$ 1,270	\$ 1,281
Wealth Management	431	430	396	388	386	303	255	285
Insurance	166	134	228	364	177	131	225	173
Investor & Treasury Services	193	214	174	157	139	143	88	167
Capital Markets	668	662	482	635	583	570	555	545
Corporate Support	(9)	(5)	(12)	29	(9)	10	200	24
Net income	\$ 2,809	\$ 3,027	\$ 2,543	\$ 2,895	\$ 2,573	\$ 2,447	\$ 2,593	\$ 2,475
Effective income tax rate	23.9%	21.5%	23.2%	20.4%	19.4%	22.6%	7.6%	24.2%
Period average US\$ equivalent of C\$1.00	\$ 0.746	\$ 0.752	\$ 0.757	\$ 0.768	\$ 0.768	\$ 0.728	\$ 0.758	\$ 0.789

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

Seasonality

Seasonal factors may impact our results in certain quarters. The first quarter has historically been seasonally 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 and investment management businesses.

Specified items affecting our consolidated results

- In the first quarter of 2017, our results included our share of a gain related to the sale of the U.S. operations of Moneris of \$212 million (before- and after-tax).
- In the third quarter of 2016, our results included a gain of \$287 million (\$235 million after-tax) related to the sale of RBC General Insurance Company to Aviva Canada Inc.

Trend analysis

The Canadian economy has generally improved over the period, expanding since the second calendar quarter of 2016 as the manufacturing and mining sectors have been boosted by improving oil prices and positive results from the energy sector, after the impact of the Alberta wildfires which temporarily halted oil production in the region in May 2016. The U.S. economy also experienced growth over the period due to higher household wages, strong job growth, continued consumer confidence, and wealth accumulation from rising equity markets and home prices. As a result of improving economic conditions, in March 2017 the Fed raised its funds target range for the second time over the period. Global markets were given a boost since the beginning of 2017 as equity markets continued to rebound from the setbacks seen in 2016, particularly in the energy sector. For further details, refer to the Economic and market review and outlook section.

Earnings have generally trended upwards over the period. Earnings were driven by volume growth partially offset by lower spreads, and higher fee-based revenue in Canadian Banking. Growth in average fee-based client assets in Wealth Management mainly due to strong capital appreciation and net sales, as well as the impact from higher U.S. interest rates also contributed to the increase in earnings over the period. Results of our acquisition of City National have been reflected in our Wealth Management segment since the first quarter of 2016 and have trended higher since the acquisition. Capital Markets results have trended upwards over the period, driven by higher results in Corporate and Investment Banking and Global Markets driven by increased client activity and improved market conditions. The decline in the fourth quarter of 2016 was primarily due to lower trading revenue largely in the U.S. and Europe, and lower equity origination activity in Canada. Results in our Insurance segment were impacted by the gain on the sale of RBC General Insurance Company in the third quarter of 2016. Investor & Treasury Services results have generally trended higher over the period due to higher funding and liquidity revenue since the first quarter of 2016, reflecting tightening credit spreads and favourable interest and foreign exchange rates movements.

Revenue has generally increased over the period reflecting solid volume and fee-based revenue growth in our Canadian Banking businesses. The first quarter of 2017 benefited from the gain on sale of the U.S. operations of Moneris as noted above. Wealth Management revenue has generally trended upwards primarily due to growth in average fee-based client assets and the inclusion of City National which has resulted in higher net interest income reflecting volume growth and the impact from higher U.S. interest rates since the first quarter of 2017. Total trading revenue which comprises trading-related revenue recorded in Net interest income and Non-interest income has generally trended upwards, reflecting stabilizing credit spreads beginning in the first quarter of 2016 which resulted in higher fixed income trading over the period. The impact of foreign exchange translation due to a generally weaker Canadian dollar also contributed to the increase in revenue over the period. Insurance revenue was primarily impacted by changes in the fair value of investments backing our policyholder liabilities, which is largely offset in PBCAE and benefitted from the gain on sale of RBC General Insurance Company in the third quarter of 2016 as noted above.

The credit quality of our portfolios has generally remained stable over the period. Higher PCL related to our Capital Markets and Canadian Banking businesses was recorded in the first two quarters of 2016 mainly reflecting the impact of the sustained low oil price environment. PCL in the first quarter of 2017 trended lower due to recoveries in our Capital Markets and Caribbean Banking portfolios.

PBCAE has fluctuated quarterly as it includes the changes to the fair value of investments backing our policyholder liabilities, which is largely offset in revenue. PBCAE has also increased due to business growth, and has been impacted by actuarial liability adjustments and claims costs over the period.

While we continue to focus on efficiency management activities, non-interest expense has generally trended upwards over the period, mostly to support business growth and due to the inclusion of City National since the first quarter of 2016. Over the period, non-interest expense also increased due to higher compliance costs, technology spend, higher variable compensation in Wealth Management and Capital Markets on improved results and an impairment related to properties held for sale in the first quarter of 2017 and higher staff costs in Caribbean Banking. The impact of foreign exchange translation also contributed to the increase.

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, principally Canadian taxable corporate dividends. Our effective income tax rate has generally been impacted over the period by higher earnings before income taxes, increased earnings in higher tax jurisdictions, and by net favourable tax adjustments.

Financial condition

Condensed balance sheets

The following table shows our condensed balance sheet:

(Millions of Canadian dollars)	As at			
	April 30 2017	January 31 2017	October 31 2016	April 30 2016
Assets (1)				
Cash and due from banks	\$ 30,518	\$ 25,363	\$ 14,929	\$ 14,845
Interest-bearing deposits with banks	25,875	22,380	27,851	29,229
Securities	219,405	224,827	236,093	224,371
Assets purchased under reverse repurchase agreements and securities borrowed	216,931	197,285	186,302	184,825
Loans				
Retail	374,168	370,161	369,470	359,863
Wholesale	160,352	154,088	154,369	150,602
Allowance for loan losses	(2,258)	(2,239)	(2,235)	(2,271)
Segregated fund net assets	1,096	1,021	981	882
Other – Derivatives	100,763	97,419	118,944	115,298
– Other	76,069	71,461	73,554	72,713
Total assets	\$ 1,202,919	\$ 1,161,766	\$ 1,180,258	\$ 1,150,357
Liabilities (1)				
Deposits	\$ 785,583	\$ 757,512	\$ 757,589	\$ 741,454
Segregated fund liabilities	1,096	1,021	981	882
Other – Derivatives	99,031	95,646	116,550	116,479
– Other	234,395	225,949	223,764	213,852
Subordinated debentures	9,646	9,487	9,762	9,564
Total liabilities	1,129,751	1,089,615	1,108,646	1,082,231
Equity attributable to shareholders	72,570	71,566	71,017	67,538
Non-controlling interests	598	585	595	588
Total equity	73,168	72,151	71,612	68,126
Total liabilities and equity	\$ 1,202,919	\$ 1,161,766	\$ 1,180,258	\$ 1,150,357

(1) Foreign currency-denominated assets and liabilities are translated to Canadian dollars.

Q2 2017 vs. Q2 2016

Total assets were up \$53 billion or 5% from last year. Foreign exchange translation increased total assets by \$19 billion.

Cash and due from banks was up \$16 billion, as a result of our management of liquidity and funding risk.

Interest-bearing deposits with banks decreased \$3 billion, largely reflecting lower deposits with central banks, partially offset by the impact of foreign exchange translation.

Securities were down \$5 billion or 2% compared to last year, largely driven by lower equity trading positions and decreased government debt securities, partially offset by the impact of foreign exchange translation and an increase in corporate debt securities reflecting our management of liquidity and funding risk.

Assets purchased under reverse repurchase agreements (reverse repos) and securities borrowed increased \$32 billion or 17%, mainly attributable to higher client and business activities partially offset by higher financial netting, and the impact of foreign exchange translation.

Loans were up \$24 billion or 5%, largely due to continued volume growth in residential mortgages in Canada reflecting increased client activity, the impact of foreign exchange translation and higher wholesale loans driven by business growth.

Derivative assets were down \$15 billion or 13%, mainly attributable to lower fair values on interest rate swaps and foreign exchange forward contracts, and the impact of foreign exchange translation. These factors were partially offset by higher fair values on cross-currency interest rate swaps and lower financial netting.

Other assets were up \$3 billion or 5%, largely reflecting higher cash collateral requirements and the impact of foreign exchange translation.

Total liabilities were up \$48 billion or 4% from last year. Foreign exchange translation increased total liabilities by \$19 billion.

Deposits increased \$44 billion or 6%, mainly as a result of the impact of foreign exchange translation, and higher business, bank and retail deposits largely reflecting increased client demand. These factors were partially offset by lower issuances of fixed-term notes, which are driven by funding requirements.

Derivative liabilities were down \$17 billion or 15%, mainly attributable to lower fair values on interest rate swaps and foreign exchange forward contracts, and the impact of foreign exchange translation. These factors were partially offset by higher fair values on cross-currency interest rate swaps and lower financial netting.

Other liabilities increased \$21 billion or 10%, mainly reflecting increased obligations related to repurchase agreements mainly reflecting higher client activity partly offset by higher financial netting, and the impact of foreign exchange translation, partially offset by lower obligations related to securities sold short.

Total equity increased \$5 billion or 7%, largely reflecting earnings, net of dividends.

Q2 2017 vs. Q1 2017

Total assets increased \$41 billion or 4% from the prior quarter, mainly due to the impact of foreign exchange translation of \$32 billion, higher assets purchased under reverse repos reflecting increased client activity and lower financial netting, and increased residential mortgages and wholesale loans reflecting higher client activity. Higher cash and due from banks reflecting our management of liquidity and funding risk, and increased interest-bearing deposits with banks driven by higher deposits with central banks also contributed to the increase. These factors were partially offset by lower U.S. government debt securities driven by business activity.

Total liabilities increased \$40 billion or 4% from the prior quarter, primarily attributable to the impact of foreign exchange translation of \$32 billion, higher bank deposits reflecting increased deposits from central banks and growth in business and retail deposits driven by higher client demand.

Q2 2017 vs. Q4 2016

Total assets increased \$23 billion or 2%, mainly attributable to higher assets purchased under reverse repos reflecting increased client activity and increased cash and due from banks reflecting our management of liquidity and funding risk. The impact of foreign exchange translation of \$11 billion, continued volume growth in residential mortgages in Canada and higher wholesale loans driven by business growth also contributed to the increase. These factors were partially offset by lower equity trading positions and lower derivative assets, largely attributable to lower fair values on interest rate swaps and foreign exchange contracts.

Total liabilities increased \$21 billion or 2%, mainly attributable to increased obligations related to repurchase agreements mainly reflecting our business activity, and higher bank deposits driven by increased deposits from central banks. Growth in business and retail deposits driven by higher client demand, and the impact of foreign exchange translation of \$11 billion also contributed to the increase. These factors were partially offset by a decrease in derivative liabilities due to the reasons noted above related to derivative assets and lower obligations related to securities sold short.

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, liquidity and funding risk, which are discussed in the Risk management section. Please refer to pages 44 to 46 of our 2016 Annual Report for a more detailed discussion of these types of arrangements.

We use structured entities to securitize our financial assets as well as assist our clients in securitizing their financial assets. These entities are not operating entities, typically have no employees, and may or may not be recorded on our Consolidated Balance Sheets.

In the normal course of business, we engage in a variety of financial transactions that may qualify for derecognition. We apply the derecognition rules to determine whether we have effectively transferred substantially all the risks and rewards or control associated with the financial assets to a third party. If the transaction meets specific criteria, it may qualify for full or partial derecognition from our Consolidated Balance Sheets.

Securizations of our financial assets

We periodically securitize our credit card receivables, residential and commercial mortgage loans and bond participation certificates primarily to diversify our funding sources, enhance our liquidity position and for capital purposes. We also securitize residential and commercial mortgage loans for sales and trading activities.

The majority of our securitization activities are recorded on our Consolidated Balance Sheets. We securitize our credit card receivables, on a revolving basis, through a consolidated structured entity. We securitize single and multiple-family residential mortgages through the National Housing Act Mortgage-Backed Securities (NHA MBS) program, which are not derecognized from our Consolidated Balance Sheets. For details of these activities, refer to Note 6 and Note 7 of our audited 2016 Annual Consolidated Financial Statements.

Securitized commercial mortgage loans are derecognized from our Consolidated Balance Sheets as we have transferred substantially all of the risks and rewards of ownership of the securitized assets. During the current quarter, we did not securitize any commercial mortgages (January 31, 2017 – \$nil; April 30, 2016 – \$nil). Our continuing involvement with the transferred assets is limited to servicing certain of the underlying commercial mortgages sold. As at April 30, 2017, there were \$1.1 billion of commercial mortgages outstanding that we continue to service related to these securitization activities (January 31, 2017 – \$1.2 billion; April 30, 2016 – \$0.9 billion).

Involvement with unconsolidated structured entities

In the normal course of business, we engage in a variety of financial transactions with structured entities to support our customers' financing and investing needs, including securitization of our clients' financial assets, creation of investment products, and other types of structured financing.

We have the ability to use credit mitigation tools such as third party guarantees, credit default swaps, and collateral to mitigate risks assumed through securitization and re-securitization exposures. The process in place to monitor the credit quality of our securitization and re-securitization exposures involves, among other things, reviewing the performance data of the underlying assets. We affirm our ratings each quarter and formally confirm or assign a new rating at least annually. For further details on our activities to manage risks, refer to the Risk management section.

Below is a description of our activities with respect to certain significant unconsolidated structured entities. For a complete discussion of our interests in consolidated and unconsolidated structured entities, refer to Note 7 of our audited 2016 Annual Consolidated Financial Statements.

RBC-administered multi-seller conduits

We administer multi-seller conduits which are used primarily for the securitization of our clients' financial assets. As at April 30, 2017, our maximum exposure to loss from these conduits was \$42.6 billion (January 31, 2017 – \$39.7 billion; April 30, 2016 – \$39.2 billion), primarily representing backstop liquidity and partial credit enhancement facilities extended to the conduits.

As at April 30, 2017, the notional amount of backstop liquidity facilities we provided was \$42.6 billion (January 31, 2017 – \$39.7 billion; April 30, 2016 – \$39.2 billion) and the partial credit enhancement facilities we provided were \$2.4 billion (January 31, 2017 – \$2.3 billion; April 30, 2016 – \$2.4 billion). The fluctuations reflect increases in securitization activities and the impact of foreign exchange translation.

Total loans extended to the multi-seller conduits under the backstop liquidity facilities were \$394 million, an increase of \$15 million from the prior quarter due to the impact of foreign exchange translation, and a decrease of \$322 million from the prior year mainly due to principal repayments partially offset by the impact of foreign exchange translation. Total assets of the multi-seller conduits as at April 30, 2017 were \$41.8 billion (January 31, 2017 – \$38.9 billion; April 30, 2016 – \$38.4 billion). The increase from the prior quarter was primarily due to increases in the Auto loans and leases, Transportation finance, and Credit cards asset classes. The increase from the prior year was primarily due to increases in the Auto loans and leases, Credit cards, Transportation finance, and Dealer floor plan receivables asset classes offset by a decrease in the Asset-backed securities asset class.

As at April 30, 2017, the total asset-backed commercial paper (ABCP) issued by the conduits amounted to \$27.8 billion (January 31, 2017 – \$25.8 billion; April 30, 2016 – \$26.4 billion). The rating agencies that rate the ABCP rated 70% of the total amount issued within the top ratings category (January 31, 2017 – 66%; April 30, 2016 – 67%) and the remaining amount in the second highest ratings category.

In October 2014, the U.S. federal regulators adopted regulations related to the credit risk retention requirements of Section 15G of the *Securities Exchange Act of 1934* (as added by Section 941 of the Dodd-Frank Act) for asset-backed securities (the Risk Retention Rules), effective for us on December 24, 2016. To comply with the Risk Retention Rules, on each day between December 24, 2016 and April 30, 2017, we held ABCP from RBC administered U.S. multi-seller conduits in an amount equal to at least 5% of the aggregate principal amount of the then outstanding ABCP and any advances under the liquidity loan agreement. As at April 30, 2017, the fair value of the ABCP held was \$1.2 billion (January 31, 2017 – \$1.1 billion; April 30, 2016 – \$nil). This inventory is classified as Securities – Available-for-sale on our Consolidated Balance Sheets.

We also purchase ABCP issued by the multi-seller conduits in our capacity as a placement agent in order to facilitate overall program liquidity. As at April 30, 2017, the fair value of our inventory was \$6 million, a decrease of \$1 million from the prior quarter and a decrease of \$5 million from the prior year. The fluctuations in inventory held reflect normal trading activity. This inventory is classified as Securities – Trading on our Consolidated Balance Sheets.

Structured finance

We invest in auction rate securities of trusts which fund their long-term investments in student loans by issuing short-term senior and subordinated notes. Our maximum exposure to loss in these auction rate securities trusts as at April 30, 2017 was \$604 million (January 31, 2017 – \$530 million; April 30, 2016 – \$520 million). The increase in our maximum exposure to loss relative to the prior quarter and year are primarily related to the purchase of auction rate securities and the impact of foreign exchange translation.

We also provide liquidity facilities to certain municipal bond Tender Option Bond (TOB) trusts in which we have an interest but do not consolidate because the residual certificates issued by the TOB trusts are held by third parties. As at April 30, 2017, our maximum exposure to loss from these unconsolidated municipal bond TOB trusts was \$2.0 billion (January 31, 2017 – \$1.6 billion; April 30, 2016 – \$1.1 billion). The increase in our maximum exposure to loss relative to the prior quarter and year are primarily related to the addition of new TOB trusts.

We provide senior warehouse financing to discrete unaffiliated structured entities that are established by third parties to acquire loans and issue term collateralized loan obligations. A portion of the proceeds from the sale of the term collateralized loan obligations is used to fully repay the senior warehouse financing that we provide. As at April 30, 2017, our maximum exposure to loss associated with outstanding senior warehouse financing facilities was \$950 million (January 31, 2017 – \$242 million; April 30, 2016 – \$563 million). The increase in our maximum exposure to loss relative to the prior quarter and year are primarily due to an increase in outstanding financing facilities.

Investment funds

We invest in hedge funds primarily to provide clients with desired exposures to referenced funds. As we make investments in the reference funds, exposures to the funds are simultaneously transferred to clients through derivative transactions. Our maximum exposure to loss in the reference funds is limited to our investments in the funds. As at April 30, 2017, our maximum exposure to loss was \$3.1 billion (January 31, 2017 – \$3.0 billion; April 30, 2016 – \$2.6 billion). The increase in the maximum exposure to loss compared to the prior quarter and year are primarily due to increased fund activity.

We also provide liquidity facilities to certain third party investment funds that issue unsecured variable-rate preferred shares and invest in portfolios of tax exempt bonds. As at April 30, 2017, our maximum exposure to these funds was \$283 million (January 31, 2017 – \$271 million; April 30, 2016 – \$714 million). The increase in the maximum exposure compared to the prior quarter is primarily due to an increase in commitments entered into during the period. The decrease in our maximum exposure compared to the prior year is primarily due to a decrease in commitments entered into during the period.

Third-party securitization vehicles

We hold interests in certain unconsolidated third-party securitization vehicles, which are structured entities. We, as well as other financial institutions, are obligated to provide funding to these entities up to our maximum commitment level and are exposed to credit losses on the underlying assets after various credit enhancements. As at April 30, 2017, our maximum exposure to loss in these entities was \$7.0 billion (January 31, 2017 – \$7.8 billion; April 30, 2016 – \$9.6 billion). The decrease in our maximum exposure to loss compared to the prior quarter and prior year are due to repayments and amortization partially offset by new investments and the impact of foreign exchange translation.

Guarantees, retail and commercial commitments

We provide guarantees and commitments to our clients that expose us to liquidity and funding risks. Our maximum potential amount of future payments in relation to our commitments and guarantee products as at April 30, 2017 was \$363.4 billion (January 31, 2017 – \$338.5 billion; April 30, 2016 – \$330.6 billion). The increase compared to the prior quarter primarily relates to increased commitments to extend credit in other credit-related commitments, business growth in securities lending indemnifications, increased funding commitments in backstop liquidity facilities and the impact of foreign exchange translation. The increase compared to the prior year primarily relates to business growth in securities lending indemnifications, increased commitments to extend credit in other credit-related commitments and the impact of foreign exchange translation. Refer to the Liquidity and funding risk section and Note 26 of our audited 2016 Annual Consolidated Financial Statements for details regarding our guarantees and commitments.

Risk management

Credit risk

Gross credit risk exposure by portfolio and geography

(Millions of Canadian dollars)	As at							January 31 2017	October 31 2016
	April 30 2017								
	Lending-related and other			Trading-related				Total exposure (4)	Total exposure (4)
	Loans and acceptances		Other (2)	Repo-style transactions	Derivatives (3)	Total exposure (4)			
Outstanding	Undrawn commitments (1)								
By portfolio									
Residential mortgages	\$ 259,973	\$ 979	\$ 203	\$ –	\$ –	\$ 261,155	\$ 258,281	\$ 256,275	
Personal	92,950	85,365	248	–	–	178,563	176,088	176,138	
Credit cards	17,417	24,528	–	–	–	41,945	45,232	41,699	
Small business (5)	3,828	7,195	6	–	–	11,029	10,168	10,071	
Retail	\$ 374,168	\$ 118,067	\$ 457	\$ –	\$ –	\$ 492,692	\$ 489,769	\$ 484,183	
Business (5)									
Agriculture	\$ 6,921	\$ 1,249	\$ 73	\$ –	\$ 100	\$ 8,343	\$ 8,217	\$ 8,008	
Automotive	8,456	5,828	367	–	547	15,198	14,654	14,128	
Consumer goods	10,530	9,418	682	–	553	21,183	19,385	20,921	
Energy									
Oil & Gas	5,977	10,790	1,729	–	1,320	19,816	19,663	19,860	
Utilities	6,003	15,161	3,280	–	1,445	25,889	25,140	26,618	
Financing products	8,163	2,656	394	680	577	12,470	11,596	13,015	
Forest products	1,101	576	80	–	17	1,774	1,776	1,772	
Health services	7,392	4,529	1,825	–	586	14,332	14,227	14,001	
Holding and investments	8,533	2,310	647	–	223	11,713	10,794	10,381	
Industrial products	5,598	7,756	497	–	764	14,615	14,007	14,443	
Mining & metals	1,404	3,767	1,124	–	191	6,486	6,134	6,374	
Non-bank financial services	10,169	14,413	16,219	320,712	43,697	405,210	353,807	328,500	
Other services	15,557	8,256	4,458	965	659	29,895	36,798	34,414	
Real estate & related	42,987	11,506	1,767	3	524	56,787	56,163	53,984	
Technology & media	9,606	13,083	715	91	1,874	25,369	26,193	28,952	
Transportation & environment	6,981	5,791	3,405	–	1,409	17,586	14,872	15,693	
Other sectors	4,411	25	2,797	1,673	557	9,463	17,001	15,568	
Sovereign (5)	10,766	11,511	107,980	39,173	13,850	183,280	157,379	157,596	
Bank (5)	4,296	1,532	128,885	106,153	24,679	265,545	264,018	252,983	
Wholesale	\$ 174,851	\$ 130,157	\$ 276,924	\$ 469,450	\$ 93,572	\$ 1,144,954	\$ 1,071,824	\$ 1,037,211	
Total exposure	\$ 549,019	\$ 248,224	\$ 277,381	\$ 469,450	\$ 93,572	\$ 1,637,646	\$ 1,561,593	\$ 1,521,394	
By geography (6)									
Canada	\$ 437,109	\$ 155,940	\$ 94,184	\$ 68,256	\$ 27,683	\$ 783,172	\$ 771,356	\$ 767,638	
U.S.	80,687	68,874	73,329	257,099	14,549	494,538	457,052	449,729	
Europe	14,708	17,705	89,530	97,884	44,737	264,564	238,082	224,840	
Other International	16,515	5,705	20,338	46,211	6,603	95,372	95,103	79,187	
Total Exposure	\$ 549,019	\$ 248,224	\$ 277,381	\$ 469,450	\$ 93,572	\$ 1,637,646	\$ 1,561,593	\$ 1,521,394	

(1) Undrawn commitments represent an estimate of the contractual amount that may be drawn upon at the time of default of an obligor.

(2) Includes credit equivalent amounts for contingent liabilities such as letters of credit and guarantees, outstanding amounts for AFS debt securities, deposits with financial institutions and other assets.

(3) Credit equivalent amount after factoring in master netting agreements.

(4) Gross credit risk exposure is before allowance for loan losses. Exposures under Basel III asset classes of qualifying revolving retail and other retail are largely included within Personal and Credit cards, while home equity lines of credit are included in Personal.

(5) Refer to Note 5 of our audited 2016 Annual Consolidated Financial Statements for the definitions of these terms.

(6) Geographic profile is based on country of residence of the borrower.

Q2 2017 vs. Q1 2017

Total gross credit risk exposure increased \$76 billion or 5% from last quarter, primarily due to the impact of foreign exchange translation, an increase in repo-style transactions, and higher deposits with central banks.

Retail exposure increased \$3 billion or 1%, largely driven by volume growth in our Canadian residential mortgages and personal lending portfolios, partially offset by lower undrawn credit cards exposure reflecting securitization activities.

Wholesale exposure increased \$73 billion or 7%, primarily attributable to the impact of foreign exchange translation, higher repo-style transactions driven by increased client activity, and increased deposits with central banks. These factors were partially offset by a decrease in exposures to the Other Services sector due to lower AFS debt securities and guarantees. Wholesale loan utilization remained stable compared to the prior quarter at 39%. Our AFS Securities (banking book) exposures are rated 96% investment grade and 4% non-investment grade.

As at April 30, 2017, our loans and acceptances exposure to oil & gas was \$16.8 billion (January 31, 2017 – \$16.6 billion); which is comprised of outstanding loans of \$6.0 billion (January 31, 2017 – \$6.2 billion), and undrawn commitments of \$10.8 billion (January 31, 2017 – \$10.4 billion). The oil & gas portfolio represents 2.1% (January 31, 2017 – 2.1%) of our total loan and acceptances portfolio. Of the \$16.8 billion exposure to oil & gas, 41% was to investment grade while 59% was to non-investment grade counterparties (January 31, 2017 – 42% and 58%, respectively).

The geographic mix of our gross credit risk exposure remained relatively unchanged from the prior quarter. Our exposure in Canada, the U.S., Europe and Other International were 48%, 30%, 16% and 6%, respectively (January 31, 2017 – 50%, 29%, 15% and 6%, respectively). Growth in U.S. was largely driven by increased repo-style transactions and the growth in Europe was largely driven by increased deposits with central banks.

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

(Millions of Canadian dollars)	As at									January 31 2017	October 31 2016
	April 30 2017										
	Asset type				Client type					Total	Total
	Loans Outstanding	Securities ⁽³⁾	Repo-style transactions	Derivatives	Financials	Sovereign	Corporate	Total			
U.K.	\$ 8,288	\$ 14,285	\$ 1,412	\$ 1,349	\$ 7,624	\$ 9,992	\$ 7,718	\$ 25,334	\$ 22,197	\$ 17,956	
Germany	852	10,906	–	257	9,441	1,403	1,171	12,015	11,577	11,273	
France	732	6,582	10	404	1,402	6,002	324	7,728	6,897	8,398	
Total U.K., Germany, France	\$ 9,872	\$ 31,773	\$ 1,422	\$ 2,010	\$ 18,467	\$ 17,397	\$ 9,213	\$ 45,077	\$ 40,671	\$ 37,627	
Greece	\$ –	\$ –	\$ –	\$ –	\$ –	\$ –	\$ –	\$ –	\$ –	\$ –	
Ireland	527	38	79	47	131	8	552	691	901	880	
Italy	31	28	–	12	41	14	16	71	148	120	
Portugal	–	–	–	–	–	–	–	–	20	16	
Spain	286	106	–	4	79	–	317	396	339	446	
Total Peripheral ⁽⁴⁾	\$ 844	\$ 172	\$ 79	\$ 63	\$ 251	\$ 22	\$ 885	\$ 1,158	\$ 1,408	\$ 1,462	
Luxembourg	\$ 1,100	\$ 9,394	\$ 1	\$ 39	\$ 783	\$ 8,837	\$ 914	\$ 10,534	\$ 6,847	\$ 6,054	
Netherlands	782	1,720	13	575	1,836	23	1,231	3,090	3,638	3,904	
Norway	269	4,637	5	7	4,466	145	307	4,918	3,737	3,945	
Sweden	118	4,197	1	27	3,214	967	162	4,343	4,159	4,168	
Switzerland	365	2,257	120	23	675	1,993	97	2,765	1,709	2,271	
Other	1,466	1,547	76	143	690	943	1,599	3,232	2,888	2,982	
Total Other Europe	\$ 4,100	\$ 23,752	\$ 216	\$ 814	\$ 11,664	\$ 12,908	\$ 4,310	\$ 28,882	\$ 22,978	\$ 23,324	
Net exposure to Europe ^{(5), (6)}	\$ 14,816	\$ 55,697	\$ 1,717	\$ 2,887	\$ 30,382	\$ 30,327	\$ 14,408	\$ 75,117	\$ 65,057	\$ 62,413	

(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 \$86.2 billion against repo-style transactions (January 31, 2017 – \$75.1 billion) and \$12.7 billion against derivatives (January 31, 2017 – \$12.5 billion).

(3) Securities include \$13.2 billion of trading securities (January 31, 2017 – \$12.7 billion), \$27.1 billion of deposits (January 31, 2017 – \$17.8 billion), and \$15.4 billion of AFS securities (January 31, 2017 – \$15 billion).

(4) Gross credit risk exposure to peripheral Europe is comprised of Greece \$ nil (January 31, 2017 – \$ nil), Ireland \$18.9 billion (January 31, 2017 – \$22.2 billion), Italy \$0.2 billion (January 31, 2017 – \$0.3 billion), Portugal \$0.1 billion (January 31, 2017 – \$0.1 billion), and Spain \$0.9 billion (January 31, 2017 – \$1 billion).

(5) Excludes \$2.2 billion (January 31, 2017 – \$2.2 billion) of exposures to supranational agencies.

(6) Reflects \$1.5 billion of mitigation through credit default swaps, which are largely used to hedge single name exposures and market risk (January 31, 2017 – \$1.8 billion).

Q2 2017 vs. Q1 2017

Net credit risk exposure to Europe increased \$10.1 billion from last quarter, largely driven by increased exposure to Luxembourg and the U.K., primarily due to higher deposits with central banks reflecting our liquidity and funding management activities. Our net exposure to peripheral Europe, which includes Greece, Ireland, Italy, Portugal and Spain remained minimal, with total outstanding exposure decreasing \$0.3 billion during the quarter to \$1.2 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 taken during the quarter on this portfolio was \$15 million, compared to \$14 million in the prior quarter. The gross impaired loans ratio of this loan book was 1.0%, up from 0.8% last quarter.

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				For the six months ended	
	April 30 2017		January 31 2017		April 30 2017	
	Uninsured		Uninsured		Uninsured	
	Residential mortgages (1)	Homeline products (2)	Residential mortgages (1)	Homeline products (2)	Residential mortgages (1)	Homeline products (2)
Region (3)						
Atlantic provinces	73%	74%	74%	74%	73%	74%
Quebec	71	73	71	73	71	73
Ontario	69	67	70	67	70	67
Alberta	73	72	73	72	73	72
Saskatchewan and Manitoba	74	74	73	74	74	74
B.C. and territories	69	65	67	64	68	65
U.S.	70	n.m.	70	n.m.	71	60
Other International	63	n.m.	63	n.m.	63	61
Average of newly originated and acquired for the quarter (4), (5)	70%	68%	70%	68%	70%	68%
Total Canadian Banking residential mortgages portfolio (6)	54%	50%	54%	51%	54%	50%

(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 perform stress testing, based on a combination of increasing unemployment, rising interest rates and a downturn in real estate markets.

Credit quality performance

Provision for (recovery of) credit loss

	For the three months ended			For the six months ended	
	April 30 2017	January 31 2017	April 30 2016	April 30 2017	April 30 2016
(Millions of Canadian dollars, except percentage amounts)					
Personal & Commercial Banking	\$ 262	\$ 249	\$ 279	\$ 511	\$ 563
Wealth Management	15	13	7	28	12
Capital Markets	24	32	123	56	243
Corporate Support and Other ⁽¹⁾	1	–	51	1	52
Total PCL	\$ 302	\$ 294	\$ 460	\$ 596	\$ 870
Canada ⁽²⁾					
Residential mortgages	\$ 9	\$ 6	\$ 8	\$ 15	\$ 19
Personal	100	109	117	209	233
Credit cards	109	108	113	217	216
Small business	8	7	9	15	17
Retail	226	230	247	456	485
Wholesale	28	11	45	39	162
PCL on impaired loans	254	241	292	495	647
U.S. ^{(2), (3)}					
Retail	\$ 1	\$ –	\$ –	\$ 1	\$ –
Wholesale	42	42	112	84	150
PCL on impaired loans	43	42	112	85	150
Other International ^{(2), (3)}					
Retail	\$ 8	\$ 2	\$ (1)	\$ 10	\$ 19
Wholesale	(3)	9	7	6	4
PCL on impaired loans	5	11	6	16	23
PCL on loans not yet identified as impaired	–	–	50	–	50
Total PCL	\$ 302	\$ 294	\$ 460	\$ 596	\$ 870
PCL ratio					
Total PCL ratio	0.23%	0.22%	0.36%	0.22%	0.33%
PCL on impaired loans ratio	0.23%	0.22%	0.32%	0.22%	0.31%
Personal & Commercial Banking	0.27%	0.25%	0.30%	0.26%	0.30%
Canadian Banking	0.27%	0.26%	0.30%	0.26%	0.29%
Caribbean Banking	0.31%	(0.06)%	0.32%	0.12%	0.61%
Wealth Management	0.12%	0.10%	0.06%	0.11%	0.05%
PCL ratio – loans	0.11%	0.10%	0.04%	0.10%	0.03%
PCL ratio – acquired credit-impaired loans	0.01%	–%	0.02%	0.01%	0.02%
Capital Markets	0.12%	0.15%	0.56%	0.13%	0.54%

(1) PCL in Corporate Support and Other primarily comprised of PCL for loans not yet identified as impaired. For further information, refer to the How we measure and report our business segments section.

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

(3) Includes acquired credit-impaired loans.

Q2 2017 vs. Q2 2016

Total PCL decreased \$158 million, or 34% from the prior year. The total PCL ratio of 23 bps improved 13 bps.

PCL in Personal & Commercial Banking decreased \$17 million or 6%, and the PCL ratio of 27 bps improved 3 bps, largely due to lower provisions in our Canadian personal lending portfolios, and lower write-offs in our credit cards portfolio. These factors were partially offset by higher provisions in our Canadian commercial lending portfolio.

PCL in Capital Markets decreased \$99 million or 80%, primarily due to lower provisions in the oil & gas sector.

PCL in Wealth Management increased \$8 million mainly reflecting higher provisions in U.S. Wealth Management (including City National).

PCL in Corporate Support and Other decreased \$50 million, as the prior year included PCL for loans not yet identified as impaired.

Q2 2017 vs. Q1 2017

Total PCL increased \$8 million, or 3% from last quarter and the total PCL ratio of 23 bps increased 1 bp.

PCL in Personal & Commercial Banking increased \$13 million or 5%, and the PCL ratio of 27 bps increased 2 bps mainly due to higher provisions in our Canadian commercial lending portfolio, higher write-offs in our Canadian credit cards portfolio and higher provisions in our Caribbean lending portfolios. These factors were partially offset by lower provisions in our Canadian personal lending portfolios.

PCL in Wealth Management increased \$2 million or 15%, reflecting higher provisions in U.S. Wealth Management (including City National).

PCL in Capital Markets decreased \$8 million or 25% as the prior quarter included a provision on one account in the real estate & related sector. This was partially offset by fewer recoveries in the oil & gas sector in the current quarter.

Q2 2017 vs. Q2 2016 (Six months ended)

Total PCL decreased \$274 million, or 31% from the prior year. The total PCL ratio of 22 bps improved 11 bps.

PCL in Personal & Commercial Banking decreased \$52 million or 9%, and the PCL ratio of 26 bps improved 4 bps, largely due to lower provisions in our Canadian lending portfolios, as well as higher recoveries and lower provisions in our Caribbean lending portfolios.

PCL in Capital Markets decreased \$187 million or 77%, primarily due to net recoveries in the oil & gas sector, partially offset by a provision taken on one account in the real estate & related sector.

PCL in Wealth Management increased \$16 million reflecting higher provisions related to U.S. Wealth Management (including City National).

PCL in Corporate Support and Other decreased \$51 million, as the prior year included PCL for loans not yet identified as impaired.

Gross impaired loans (GIL)

(Millions of Canadian dollars, except percentage amounts)	As at		
	April 30 2017	January 31 2017	April 30 2016
Personal & Commercial Banking	\$ 1,543	\$ 1,537	\$ 1,731
Wealth Management (1)	706	610	736
Capital Markets	984	1,396	1,234
Investor & Treasury Services	–	–	2
Corporate Support and Other	16	16	–
Total GIL	\$ 3,249	\$ 3,559	\$ 3,703
Canada (2)			
Retail	\$ 611	\$ 639	\$ 651
Wholesale	405	427	591
GIL	1,016	1,066	1,242
U.S. (1), (2)			
Retail	\$ 76	\$ 50	\$ 42
Wholesale	1,243	1,653	1,568
GIL	1,319	1,703	1,610
Other International (2)			
Retail	\$ 373	\$ 355	\$ 330
Wholesale	541	435	521
GIL	914	790	851
Total GIL	\$ 3,249	\$ 3,559	\$ 3,703
Impaired loans, beginning balance	\$ 3,559	\$ 3,903	\$ 3,120
Classified as impaired during the period (new impaired) (3)	601	649	1,378
Net repayments (3)	(220)	(434)	(148)
Amounts written off	(354)	(336)	(345)
Other (3), (4)	(337)	(223)	(302)
Impaired loans, balance at end of period	\$ 3,249	\$ 3,559	\$ 3,703
GIL ratio (5)			
Total GIL ratio	0.59%	0.66%	0.71%
Personal & Commercial Banking	0.39%	0.39%	0.45%
Canadian Banking	0.25%	0.26%	0.28%
Caribbean Banking	6.87%	6.70%	8.14%
Wealth Management	1.36%	1.20%	1.54%
GIL ratio – loans	0.72%	0.52%	0.43%
GIL ratio – acquired credit-impaired loans	0.64%	0.68%	1.11%
Capital Markets	1.18%	1.66%	1.38%

(1) Includes \$331 million (January 31, 2017 – \$348 million; April 30, 2016 – \$531 million) related to acquired credit-impaired loans. For further details refer to Note 5 of our Condensed Financial Statements.

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

(3) 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.

(4) Includes Return to performing status during the year, Recoveries of loans and advances previously written off, Sold, and Exchange and other movements.

(5) GIL as a % of loans and acceptances.

Q2 2017 vs. Q2 2016

Total GIL decreased \$454 million or 12% from a year ago, and the total GIL ratio of 59 bps improved 12 bps largely reflecting lower impaired loans in our Capital Markets portfolio. Total GIL also includes acquired credit-impaired loans (ACI) of \$331 million related to City National, which contributed 6 bps to the GIL ratio. For further details on ACI loans, refer to Note 5 of our Condensed Financial Statements.

GIL in Personal & Commercial Banking decreased \$188 million or 11%, and the GIL ratio of 39 bps improved 6 bps, mainly due to lower impaired loans in our Canadian and Caribbean commercial lending portfolios reflecting higher repayments, as well as lower impaired loans in our Canadian personal lending portfolio. These factors were partially offset by higher impaired loans in our Caribbean personal lending portfolios.

GIL in Capital Markets decreased \$250 million, primarily due to lower impaired loans in the oil & gas sector, partially offset by one impaired loan in the real estate & related sector.

GIL in Wealth Management decreased \$30 million or 4%, mainly reflecting a decline in acquired credit-impaired loans related to City National, partially offset by higher impaired loans in U.S. Wealth Management (including City National) and International Wealth Management.

Q2 2017 vs. Q1 2017

Total GIL decreased \$310 million or 9% from the prior quarter, while the GIL ratio of 59 bps improved 7 bps.

GIL in Personal & Commercial Banking increased \$6 million, and the GIL ratio of 39 bps remained flat compared to the prior quarter, largely due to higher impaired loans in our Caribbean lending portfolios and our Canadian commercial lending portfolios partially offset by lower impaired loans in our Canadian personal lending portfolios.

GIL in Capital Markets decreased \$412 million or 30%, mainly due to loans in our oil & gas portfolio returning to performing status.

GIL in Wealth Management increased \$96 million or 16%, mainly due to impaired loans on one account in International Wealth Management and higher impaired loans in U.S. Wealth Management (including City National). These factors were partially offset by a decline in ACI loans related to City National.

Allowance for credit losses (ACL)

(Millions of Canadian dollars)	As at		
	April 30 2017	January 31 2017	April 30 2016
Allowance for impaired loans			
Personal & Commercial Banking	\$ 494	\$ 496	\$ 544
Wealth Management (1)	93	75	53
Capital Markets	241	243	251
Investor & Treasury Services	–	–	2
Corporate Support and Other	1	1	–
Total allowance for impaired loans	\$ 829	\$ 815	\$ 850
Canada (2)			
Retail	\$ 145	\$ 156	\$ 156
Wholesale	121	119	214
Allowance for impaired loans	266	275	370
U.S. (1),(2)			
Retail	\$ 1	\$ 1	\$ 1
Wholesale	209	195	149
Allowance for impaired loans	210	196	150
Other International (2)			
Retail	\$ 180	\$ 169	\$ 165
Wholesale	173	175	165
Allowance for impaired loans	353	344	330
Total allowance for impaired loans	\$ 829	\$ 815	\$ 850
Allowance for loans not yet identified as impaired	1,520	1,515	1,512
Total ACL	\$ 2,349	\$ 2,330	\$ 2,362

(1) Effective Q1 2016, includes ACL related to acquired credit-impaired loans from our acquisition of City National.

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

Q2 2017 vs. Q2 2016

Total ACL decreased \$13 million or 1% from a year ago, largely due to lower ACL in Personal & Commercial Banking and Capital Markets, partially offset by higher ACL in Wealth Management. For further details, refer to Note 5 of our Condensed Financial Statements.

Q2 2017 vs. Q1 2017

Total ACL increased \$19 million or 1% from last quarter as higher ACL in Wealth Management was partially offset by lower ACL in Personal & Commercial Banking and Capital Markets.

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 2016 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. 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). For further details of our approach to the management of market risk, refer to the Market risk section of our 2016 Annual Report.

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, the Bank assesses two primary financial metrics, 12-month Net Interest Income (NII) risk and Economic Value of Equity (EVE) risk, under a range of market shocks and scenarios. There has been no material change to the SIRR measurement methodology, controls, or limits from those described in our 2016 Annual Report.

Market risk measures – FVTPL positions

VaR and SVaR

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

(Millions of Canadian dollars)	April 30, 2017				January 31, 2017		April 30, 2016	
	As at Apr. 30	For the three months ended			As at Jan. 31	For the three months ended	As at Apr. 30	For the three months ended
		Average	High	Low		Average		Average
Equity	\$ 13	\$ 13	\$ 21	\$ 9	\$ 14	\$ 13	\$ 13	\$ 18
Foreign exchange	4	4	6	3	4	5	5	5
Commodities	3	4	5	3	3	3	2	3
Interest rate (1)	18	18	23	14	15	15	18	22
Credit specific (2)	4	4	5	4	5	4	7	5
Diversification (3)	(15)	(18)	(22)	(12)	(19)	(17)	(15)	(16)
Market risk VaR	\$ 27	\$ 25	\$ 33	\$ 19	\$ 22	\$ 23	\$ 30	\$ 37
Market risk Stressed VaR	\$ 47	\$ 50	\$ 69	\$ 38	\$ 52	\$ 55	\$ 86	\$ 102

(Millions of Canadian dollars)	April 30, 2017				April 30, 2016	
	As at Apr. 30	For the six months ended			As at Apr. 30	For the six months ended
		Average	High	Low		Average
Equity	\$ 13	\$ 13	\$ 24	\$ 8	\$ 13	\$ 20
Foreign exchange	4	4	6	3	5	5
Commodities	3	3	5	2	2	3
Interest rate (1)	18	17	23	13	18	23
Credit specific (2)	4	4	5	4	7	5
Diversification (3)	(15)	(17)	(23)	(12)	(15)	(17)
Market risk VaR	\$ 27	\$ 24	\$ 33	\$ 18	\$ 30	\$ 39
Market risk Stressed VaR	\$ 47	\$ 53	\$ 76	\$ 38	\$ 86	\$ 104

(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.

Q2 2017 vs. Q2 2016

Average market risk VaR of \$25 million decreased \$12 million from the prior year, driven by lower equity risk, mainly attributable to less volatile equity-derivative markets, and decreased average interest rate VaR due to reduced inventories in fixed income and securitized product portfolios during the latter part of fiscal 2016. The impact of foreign exchange translation also contributed to the decrease.

Average SVaR of \$50 million decreased \$52 million compared to last year, largely due to reductions in fixed income and securitized product portfolios as noted above, risk reductions in certain legacy trading portfolios and the impact of foreign exchange translation.

Q2 2017 vs. Q1 2017

Average market risk VaR of \$25 million remained relatively unchanged, as low market risk exposures have been maintained from the prior quarter. A modest increase in interest rate VaR was driven by higher fixed income inventories in the current quarter.

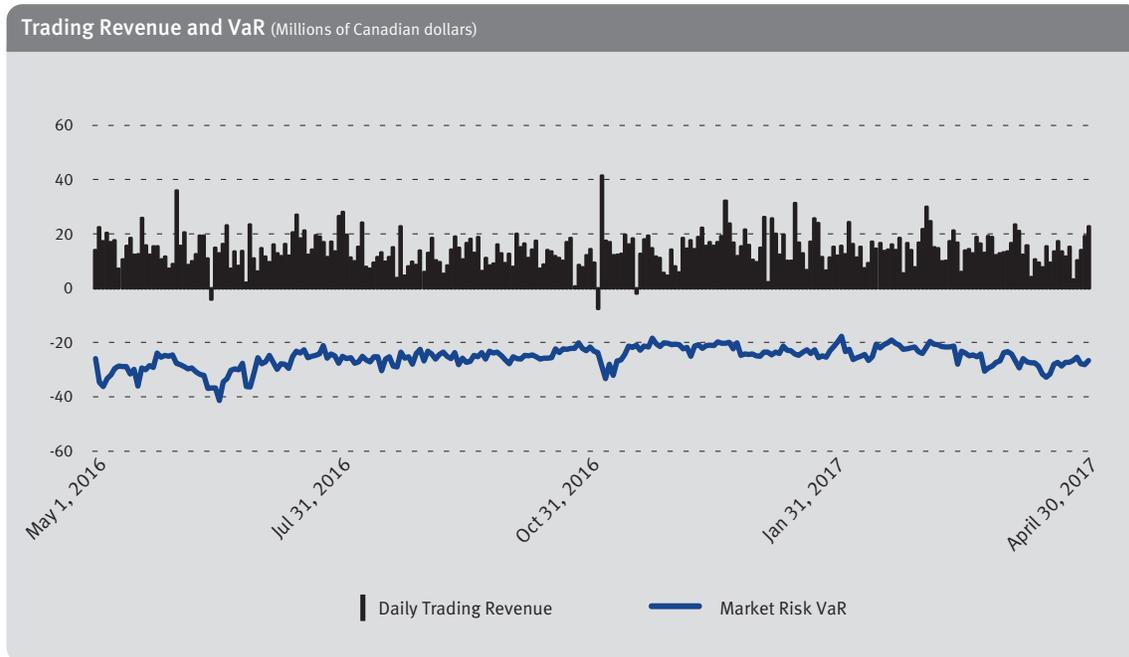
Average SVaR of \$50 million decreased \$5 million from the prior quarter, largely driven by hedging activity in equity portfolios.

Q2 2017 vs. Q2 2016 (Six months ended)

Average market risk VaR of \$24 million decreased \$15 million compared to the prior year, largely reflecting reductions in fixed income and securitized product portfolios and lower equity risk as noted above, and the impact of foreign exchange translation.

Average SVaR of \$53 million decreased \$51 million compared to the prior year, mainly reflecting the factors noted above under Average market risk VaR.

The following chart graphically displays a bar chart of our daily trading profit and loss and a line chart of our daily market risk VaR. We incurred no net trading losses during the quarter, as compared to 1 day of losses totalling \$2 million in the first quarter of 2017.



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 fair value through profit or loss (FVTPL). Consequently, changes in the fair values of these assets are recorded in investment income in the consolidated statements of income and are largely offset by changes in the fair value of the actuarial liabilities, the impact of which is reflected in insurance policyholder benefits and claims. As at April 30, 2017, we had liabilities with respect to insurance obligations of \$9.3 billion, up from \$8.8 billion in the prior quarter, and trading securities of \$7.1 billion in support of the liabilities, up from \$6.6 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 the Bank's structural balance sheet, assuming no subsequent hedging. Rate floors are applied within the declining rates scenarios, with floor levels set based on global rate movement experience. Interest rate risk measures are based upon interest rate exposures at a specific time and continuously change as a result of business activities and risk management actions.

(Millions of Canadian dollars)	April 30 2017						January 31 2017		April 30 2016	
	Economic value of equity risk			Net interest income risk (1)			Economic value of equity risk	Net interest income risk (2)	Economic value of equity risk	Net interest income risk (2)
	Canadian dollar impact	U.S. dollar impact (2)	Total	Canadian dollar impact	U.S. dollar impact (2)	Total				
Before-tax impact of:										
100bps increase in rates	\$ (1,061)	\$ (147)	\$ (1,208)	\$ 319	\$ 152	\$ 471	\$ (1,304)	\$ 414	\$ (1,192)	\$ 421
100bps decrease in rates	797	(142)	655	(400)	(177)	(577)	860	(553)	571	(450)

(1) Represents the 12-month Net interest income 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 April 30, 2017, an immediate and sustained -100 bps shock would have had a negative impact to the Bank's NII of \$577 million, up from \$553 million from last quarter. An immediate and sustained +100 bps shock at the end of April 30, 2017 would have had a negative impact to the Bank's EVE of \$1,208 million, down from \$1,304 million reported last quarter. The quarter-over-quarter increase in NII risk was mainly attributed to an increase in interest rate sensitive assets. The decrease in EVE risk quarter-over-quarter is primarily attributed to a corresponding reduction in term fixed rate assets. During the second quarter of 2017, NII and EVE risks were maintained well within approved limits.

Market risk measures for other material non-trading portfolios

AFS securities

We held \$72 billion of securities classified as AFS as at April 30, 2017, compared to \$68 billion as at January 31, 2017. We hold debt securities designated as AFS primarily as investments, as well as to manage liquidity risk and hedge interest rate risk in our non-trading banking balance sheet. Certain legacy debt portfolios are also classified as AFS. Changes in the value of these securities are reported in other comprehensive income. As at April 30, 2017, our portfolio of AFS securities exposes us to interest rate risk of a

pre-tax change in value of \$12.1 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 \$26.2 million, as measured by the change in value for a one basis point widening of credit spreads. The value of the AFS securities included in our SIRR measure as at April 30, 2017 was \$49.1 billion. Our AFS securities also include equity exposures of \$1.5 billion as at April 30, 2017, unchanged from the prior 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 \$4.3 billion as at April 30, 2017 were up from \$3.5 billion last quarter, and derivative liabilities of \$3.3 billion as at April 30, 2017 were down from \$3.6 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 \$1.5 billion as at April 30, 2017, down from \$1.9 billion as at January 31, 2017, and derivative liabilities of \$1.7 billion as at April 30, 2017, up from \$1.6 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 AFS securities and structural interest rate risk. To the extent these swaps are considered effective hedges, changes in their fair value are recognized in other comprehensive income. The interest rate risk for the designated cash flow hedges, measured as the change in the fair value of the derivatives for a one basis point parallel increase in yields, was \$6.1 million as of April 30, 2017 compared to \$6.8 million as of January 31, 2017.

Interest rate swaps are also used to hedge changes in the fair value of certain fixed-rate instruments. Changes in fair value of the interest rate swaps and the hedged instruments that are related to interest rate movements are reflected in 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 income. Derivative assets of \$2.8 billion as at April 30, 2017 on these trades were up from \$1.6 billion as at January 31, 2017, and derivative liabilities of \$1.6 billion as at April 30, 2017 were down from \$2.0 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 level of operations in the U.S. and other activities conducted in U.S. dollars. Other significant exposures are to the British pound and the Euro, due to our activities conducted internationally in these currencies. A strengthening or weakening of the Canadian dollar compared to the U.S. dollar, British pound and the Euro could reduce or increase, as applicable, the translated value of our foreign currency denominated revenue, expenses and earnings and could have a significant effect on the results of our operations. We are also exposed to foreign exchange rate risk arising from our investments in foreign operations. For unhedged equity investments, when the Canadian dollar appreciates against other currencies, the unrealized translation losses on net foreign investments decreases our shareholders' equity through the other components of equity and decreases the translated value of the Risk-weighted Assets (RWA) of the foreign currency-denominated asset. The reverse is true when the Canadian dollar depreciates against other currencies. Consequently, we consider these impacts in selecting an appropriate level of our investments in foreign operations to be hedged.

Our overall trading and non-trading market risk objectives, policies and methodologies have not changed significantly from 2016.

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:

(Millions of Canadian dollars)	As at April 30, 2017			
	Balance sheet amount	Market risk measure		Non-traded risk primary risk sensitivity
		Traded risk (1)	Non-traded risk (2)	
Assets subject to market risk				
Cash and due from banks (3)	\$ 30,518	\$ 21,499	\$ 9,019	Interest rate
Interest-bearing deposits with banks (4)	25,875	12,686	13,189	Interest rate
Securities				
Trading (5)	132,370	125,226	7,144	Interest rate, credit spread
Available-for-sale (6)	87,035	–	87,035	Interest rate, credit spread, equity
Assets purchased under reverse repurchase agreements and securities borrowed (7)	216,931	216,658	273	Interest rate
Loans				
Retail (8)	374,168	10,375	363,793	Interest rate
Wholesale (9)	160,352	4,404	155,948	Interest rate
Allowance for loan losses	(2,258)	–	(2,258)	Interest rate
Segregated fund net assets (10)	1,096	–	1,096	Interest rate
Derivatives	100,763	96,422	4,341	Interest rate, foreign exchange
Other assets (11)	69,755	23,801	45,954	Interest rate
Assets not subject to market risk (12)	6,314			
Total assets	\$ 1,202,919	\$ 511,071	\$ 685,534	
Liabilities subject to market risk				
Deposits (13)	\$ 785,583	\$ 77,213	\$ 708,370	Interest rate
Segregated fund liabilities (14)	1,096	–	1,096	Interest rate
Other				
Obligations related to securities sold short	37,331	37,331	–	
Obligations related to assets sold under repurchase agreements and securities loaned	127,955	127,955	–	Interest rate
Derivatives	99,031	95,682	3,349	Interest rate, foreign exchange
Other liabilities (15)	59,938	19,813	40,125	Interest rate
Subordinated debentures	9,646	–	9,646	Interest rate
Liabilities not subject to market risk (16)	9,171			
Total liabilities	\$ 1,129,751	\$ 357,994	\$ 762,586	
Total equity	\$ 73,168			
Total liabilities and equity	\$ 1,202,919			

(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 our Insurance business and AFS securities not included in SIRR.

The following footnotes provide additional information on the Non-traded risk amounts:

(3) Cash and due from banks includes \$7,497 million included in SIRR. An additional \$1,522 million is included in other risk controls.

(4) Interest-bearing deposits with banks of \$13,189 million are included in SIRR.

(5) Trading securities include \$7,144 million in securities used in the management of the SIRR of RBC Insurance, which is not included in our disclosed SIRR measure.

(6) Includes available-for-sale securities of \$71,683 million and held-to-maturity securities of \$15,352 million. \$64,482 million of the total securities are included in SIRR. An additional \$1,896 million are held by our insurance businesses that do not contribute to our disclosed SIRR measures. The remaining \$20,657 million are captured in other internal non-trading market risk reporting.

(7) Assets purchased under reverse repurchase agreements include \$273 million reflected in SIRR.

(8) Retail loans include \$363,514 million reflected in SIRR. An additional \$279 million is used in the management of the SIRR of RBC Insurance.

(9) Wholesale loans include \$154,466 million reflected in SIRR. An additional \$1,482 million is used in the management of the SIRR of RBC Insurance.

(10) Investments for the account of segregated fund holders are included in the management of the SIRR of RBC Insurance.

(11) Other assets include \$43,516 million reflected in SIRR. An additional \$2,438 million is used in the management of the SIRR of RBC Insurance.

(12) Assets not subject to market risk include \$6,314 million of physical and other assets.

(13) Deposits include \$651,222 million reflected in SIRR. The remaining \$57,148 million are captured in other internal non-trading market risk reporting.

(14) Insurance and investment contracts for the account of segregated fund holders are included in the management of the SIRR of RBC Insurance.

(15) Other liabilities include \$9,921 million used in the management of the SIRR of RBC Insurance and \$30,204 million contribute to our SIRR measure.

(16) Liabilities not subject to market risk include \$9,171 million of payroll related and other liabilities.

(Millions of Canadian dollars)	As at January 31, 2017			
	Balance sheet amount	Market risk measure		Non-traded risk primary risk sensitivity
		Traded risk (1)	Non-traded risk (2)	
Assets subject to market risk				
Cash and due from banks (3)	\$ 25,363	\$ 17,047	\$ 8,316	Interest rate
Interest-bearing deposits with banks (4)	22,380	13,404	8,976	Interest rate
Securities				
Trading (5)	142,192	135,516	6,676	Interest rate, credit spread
Available-for-sale (6)	82,635	–	82,635	Interest rate, credit spread, equity
Assets purchased under reverse repurchase agreements and securities borrowed (7)	197,285	197,024	261	Interest rate
Loans				
Retail (8)	370,161	9,179	360,982	Interest rate
Wholesale (9)	154,088	3,569	150,519	Interest rate
Allowance for loan losses	(2,239)	–	(2,239)	Interest rate
Segregated fund net assets (10)	1,021	–	1,021	Interest rate
Derivatives	97,419	93,932	3,487	Interest rate, foreign exchange
Other assets (11)	66,333	20,676	45,657	Interest rate
Assets not subject to market risk (12)	5,128			
Total assets	\$ 1,161,766	\$ 490,347	\$ 666,291	
Liabilities subject to market risk				
Deposits (13)	\$ 757,512	\$ 74,566	\$ 682,946	Interest rate
Segregated fund liabilities (14)	1,021	–	1,021	Interest rate
Other				
Obligations related to securities sold short	37,969	37,969	–	
Obligations related to assets sold under repurchase agreements and securities loaned	123,474	123,474	–	Interest rate
Derivatives	95,646	92,026	3,620	Interest rate, foreign exchange
Other liabilities (15)	59,459	18,302	41,157	Interest rate
Subordinated debentures	9,487	–	9,487	Interest rate
Liabilities not subject to market risk (16)	5,047			
Total liabilities	\$ 1,089,615	\$ 346,337	\$ 738,231	
Total equity	\$ 72,151			
Total liabilities and equity	\$ 1,161,766			

(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 our Insurance business and AFS securities not included in SIRR.

The following footnotes provide additional information on the Non-traded risk amounts:

(3) Cash and due from banks includes \$8,289 million included in SIRR. An additional \$27 million is included in other risk controls.

(4) Interest-bearing deposits with banks of \$8,976 million are included in SIRR.

(5) Trading securities include \$6,603 million in securities used in the management of the SIRR of RBC Insurance, which is not included in our disclosed SIRR measure.

(6) Includes available-for-sale securities of \$67,717 million and held-to-maturity securities of \$14,918 million. \$61,647 million of the total securities are included in SIRR. An additional \$1,887 million are held by our insurance businesses that do not contribute to our disclosed SIRR measures. The remaining \$19,101 million are captured in other internal non-trading market risk reporting.

(7) Assets purchased under reverse repurchase agreements include \$261 million reflected in SIRR.

(8) Retail loans include \$360,711 million reflected in SIRR. An additional \$271 million is used in the management of the SIRR of RBC Insurance.

(9) Wholesale loans include \$149,061 million reflected in SIRR. An additional \$1,458 million is used in the management of the SIRR of RBC Insurance.

(10) Investments for the account of segregated fund holders are included in the management of the SIRR of RBC Insurance.

(11) Other assets include \$43,267 million reflected in SIRR. An additional \$2,390 million is used in the management of the SIRR of RBC Insurance.

(12) Assets not subject to market risk include \$5,128 million of physical and other assets.

(13) Deposits include \$630,290 million reflected in SIRR. The remaining \$52,656 million are captured in other internal non-trading market risk reporting. Amounts have been revised from those previously presented.

(14) Insurance and investment contracts for the account of segregated fund holders are included in the management of the SIRR of RBC Insurance.

(15) Other liabilities include \$9,397 million used in the management of the SIRR of RBC Insurance and \$31,760 million contribute to our SIRR measure.

(16) Liabilities not subject to market risk include \$5,047 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 sufficient liquidity resources to satisfy current and prospective commitments in both business-as-usual and stressed conditions. There have been no material changes to our LRMF as described in our 2016 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.

Liquidity reserve

(Millions of Canadian dollars)	As at April 30, 2017				
	Bank-owned liquid assets (1)	Securities received as collateral from securities financing and derivative transactions	Total liquid assets	Encumbered liquid assets	Unencumbered liquid assets
Cash and holding at central banks	\$ 39,388	\$ –	\$ 39,388	\$ 2,175	\$ 37,213
Deposits in other banks available overnight	2,495	–	2,495	261	2,234
Securities issued or guaranteed by sovereigns, central banks or multilateral development banks (2)	319,742	26,437	346,179	202,457	143,722
Other securities	145,968	42,672	188,640	68,225	120,415
Liquidity assets eligible at central banks (not included above) (3)	583	–	583	–	583
Undrawn credit lines granted by central banks (4)	13,993	–	13,993	–	13,993
Other assets eligible as collateral for discount (5),(6)	90,989	–	90,989	–	90,989
Other liquid assets (7)	22,369	–	22,369	22,369	–
Total liquid assets	\$ 635,527	\$ 69,109	\$ 704,636	\$ 295,487	\$ 409,149

(Millions of Canadian dollars)	As at January 31, 2017				
	Bank-owned liquid assets (1)	Securities received as collateral from securities financing and derivative transactions	Total liquid assets	Encumbered liquid assets	Unencumbered liquid assets
Cash and holding at central banks	\$ 36,448	\$ –	\$ 36,448	\$ 1,743	\$ 34,705
Deposits in other banks available overnight	2,376	–	2,376	231	2,145
Securities issued or guaranteed by sovereigns, central banks or multilateral development banks (2)	316,673	26,524	343,197	196,645	146,552
Other securities	140,682	37,750	178,432	64,709	113,723
Liquidity assets eligible at central banks (not included above) (3)	578	–	578	–	578
Undrawn credit lines granted by central banks (4)	13,203	–	13,203	–	13,203
Other assets eligible as collateral for discount (5),(6)	89,487	–	89,487	–	89,487
Other liquid assets (7)	19,480	–	19,480	19,480	–
Total liquid assets	\$ 618,927	\$ 64,274	\$ 683,201	\$ 282,808	\$ 400,393

(Millions of Canadian dollars)	As at	
	April 30 2017	January 31 2017
Royal Bank of Canada (6)	\$ 206,435	\$ 206,104
Foreign branches	63,929	61,514
Subsidiaries	138,785	132,775
Total unencumbered liquid assets	\$ 409,149	\$ 400,393

(1) The Bank-owned liquid assets amount includes securities owned outright by the Bank as well as collateral received through reverse repurchase transactions.

(2) 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).

(3) Includes Auction Rate Securities.

(4) Includes loans that qualify as eligible collateral for the discount window facility available to us at the Federal Reserve Bank of New York (Federal Reserve Bank). Amounts are face value and would be subject to collateral margin requirements applied by the Federal Reserve Bank to determine collateral value/borrowing capacity. Access to the discount window borrowing program is conditional on meeting requirements set by the Federal Reserve Bank and borrowings are typically expected to be infrequent and due to uncommon occurrences requiring temporary accommodation.

(5) 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 Bank of Canada for advances under its Emergency Lending Assistance (ELA) program. ELA and other central bank facilities are not considered sources 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 central bank collateral to meet requirements and mitigate further market liquidity disruption.

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

(7) Represents pledges 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.

Q2 2017 vs. Q1 2017

Total liquid assets increased \$21 billion primarily due to a higher balance of securities received as collateral under reverse repurchase and collateral swap transactions.

Asset Encumbrance

The table below provides a summary of cash, securities and other assets, distinguishing between those that are encumbered assets and those available for sale or use as collateral in secured funding transactions. Other assets, such as mortgages and credit card

receivables can also be monetized, although over a longer timeframe than that required for marketable securities. As at April 30, 2017, our Unencumbered assets available as collateral comprised 34% of our total assets (January 31, 2017 – 34%).

Asset encumbrance

(Millions of Canadian dollars)	As at									
	April 30 2017					January 31 2017				
	Encumbered		Unencumbered			Encumbered		Unencumbered		
	Pledged as collateral	Other (1)	Available as collateral (2)	Other (3)	Total (4)	Pledged as collateral	Other (1)	Available as collateral (2)	Other (3)	Total (4)
Cash and due from banks	\$ –	\$ 2,175	\$ 28,343	\$ –	\$ 30,518	\$ –	\$ 1,743	\$ 23,620	\$ –	\$ 25,363
Interest-bearing deposits with banks	–	261	25,614	–	25,875	–	231	22,149	–	22,380
Securities										
Trading	53,063	–	78,383	924	132,370	53,245	–	87,431	1,516	142,192
Available-for-sale	3,309	–	79,954	3,772	87,035	3,207	–	76,656	2,772	82,635
Assets purchased under reverse repurchase agreements and securities borrowed	223,039	–	94,416	15,850	333,305	213,421	–	81,826	14,521	309,768
Loans										
Retail										
Mortgage securities	35,585	–	34,746	–	70,331	34,238	–	35,155	–	69,393
Mortgage loans	41,094	–	14,312	134,236	189,642	41,120	–	12,991	133,820	187,931
Non-mortgage loans (5)	10,315	–	65,569	38,311	114,195	8,979	–	64,595	39,263	112,837
Wholesale (5)	3,705	–	25,984	130,663	160,352	3,563	–	26,268	124,257	154,088
Allowance for loan losses	–	–	–	(2,258)	(2,258)	–	–	–	(2,239)	(2,239)
Segregated fund net assets	–	–	–	1,096	1,096	–	–	–	1,021	1,021
Other – Derivatives	–	–	–	100,763	100,763	–	–	–	97,419	97,419
– Others (6)	22,369	–	–	53,700	76,069	19,480	–	–	51,981	71,461
Total assets	\$ 392,479	\$ 2,436	\$ 447,321	\$ 477,057	\$ 1,319,293	\$ 377,253	\$ 1,974	\$ 430,691	\$ 464,331	\$ 1,274,249

(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 Bank of Canada for advances under its ELA program. We also lodge loans that qualify as eligible collateral for the discount window facility available to us at the Federal Reserve Bank of New York. 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 central bank 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 and derivative transactions.

(5) Amounts have been restated from those previously presented.

(6) The Pledged as collateral amounts relate 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 April 30, 2017, relationship-based deposits, which are the primary source of funding for retail loans and mortgages, were \$520 billion or 54% of our total funding (January 31, 2017 – \$505 billion or 55%). The remaining portion is comprised of short- and long-term wholesale funding.

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

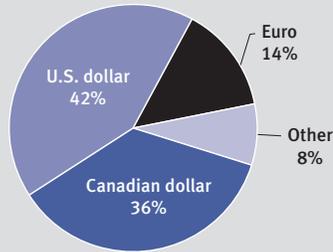
Programs by geography

Canada	U.S.	Europe/Asia
<ul style="list-style-type: none"> Canadian Shelf – \$25 billion 	<ul style="list-style-type: none"> SEC Shelf Program – US\$40 billion SEC Registered Covered Bond Program – US\$15 billion (1) 	<ul style="list-style-type: none"> European Debt Issuance Program – US\$40 billion Global Covered Bond Program – €32 billion Japanese Issuance Programs – ¥1 trillion

(1) Subject to the €32 billion Global Covered Bond Program limit. Upon the enactment of US SEC Regulation AB II on November 23, 2016, we are not currently able to issue new series of SEC-registered covered bonds under the existing program.

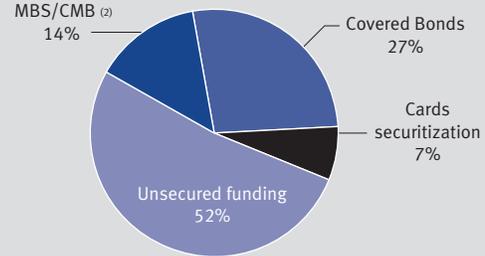
We also raise long-term funding using Canadian Deposit Notes, Canadian NHA MBS, Canada Mortgage Bonds, credit card receivable-backed securities, Kangaroo Bonds (issued in the Australian domestic market by foreign firms) and Yankee Certificates of Deposit (issued in the U.S. domestic market by foreign 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
(\$150 billion as at April 30, 2017)



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

Long-term debt⁽¹⁾ – funding mix by product
(\$150 billion as at April 30, 2017)



(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 and represents our enhanced disclosure:

Composition of wholesale funding⁽¹⁾

(Millions of Canadian dollars)	As at April 30, 2017							
	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⁾	\$ 7,349	\$ 173	\$ 48	\$ 14	\$ 7,584	\$ –	\$ –	\$ 7,584
Certificates of deposit and commercial paper	1,100	6,876	13,145	10,726	31,847	639	–	32,486
Asset-backed commercial paper ⁽³⁾	1,211	2,319	3,904	3,015	10,449	–	–	10,449
Senior unsecured medium-term notes ⁽⁴⁾	44	2,307	4,458	6,218	13,027	26,356	40,488	79,871
Senior unsecured structured notes ⁽⁵⁾	115	240	338	1,246	1,939	2,112	7,124	11,175
Mortgage securitization	–	651	783	1,881	3,315	4,545	12,546	20,406
Covered bonds/asset-backed securities ⁽⁶⁾	–	1,843	4,095	4,529	10,467	11,121	29,386	50,974
Subordinated liabilities	–	123	–	–	123	–	9,509	9,632
Other ⁽⁷⁾	2,344	1,432	1,432	914	6,122	12	5,079	11,213
Total	\$ 12,163	\$ 15,964	\$ 28,203	\$ 28,543	\$ 84,873	\$ 44,785	\$ 104,132	\$ 233,790
Of which:								
– Secured	\$ 2,793	\$ 6,081	\$ 8,782	\$ 9,425	\$ 27,081	\$ 15,666	\$ 41,931	\$ 84,678
– Unsecured	9,370	9,883	19,421	19,118	57,792	29,119	62,201	149,112

(Millions of Canadian dollars)	As at January 31, 2017							
	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⁾	\$ 4,299	\$ 49	\$ 33	\$ 30	\$ 4,411	\$ –	\$ –	\$ 4,411
Certificates of deposit and commercial paper	5,894	5,272	6,987	12,155	30,308	1,144	52	31,504
Asset-backed commercial paper ⁽³⁾	1,149	2,142	3,764	2,894	9,949	–	–	9,949
Senior unsecured medium-term notes ⁽⁴⁾	2,941	4,514	2,238	6,941	16,634	21,398	41,728	79,760
Senior unsecured structured notes ⁽⁵⁾	45	163	358	579	1,145	2,451	7,108	10,704
Mortgage securitization	–	514	651	1,354	2,519	5,330	12,370	20,219
Covered bonds/asset-backed securities ⁽⁶⁾	–	608	1,757	6,473	8,838	7,798	30,545	47,181
Subordinated liabilities	–	–	115	–	115	–	9,384	9,499
Other ⁽⁷⁾	1,861	1,278	120	2,170	5,429	9	4,885	10,323
Total	\$ 16,189	\$ 14,540	\$ 16,023	\$ 32,596	\$ 79,348	\$ 38,130	\$ 106,072	\$ 223,550
Of which:								
– Secured	\$ 2,471	\$ 4,468	\$ 6,172	\$ 10,721	\$ 23,832	\$ 13,128	\$ 42,915	\$ 79,875
– Unsecured	13,718	10,072	9,851	21,875	55,516	25,002	63,157	143,675

(1) Excludes bankers' acceptances and repos.

(2) Only includes deposits raised by treasury. Excludes deposits associated with services we provide to these 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, auto and mortgage loans.

(7) Includes tender option bonds (secured) of \$2,850 million (January 31, 2017 – \$2,526 million), bearer deposit notes (unsecured) of \$3,483 million (January 31, 2017 – \$3,103 million) and other long-term structured deposits (unsecured) of \$4,880 million (January 31, 2017 – \$4,694 million).

Credit ratings

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

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

Credit ratings

	As at May 24, 2017		
	Short-term debt	Senior long-term debt	Outlook
Moody's ⁽²⁾	P-1	A1	negative
Standard & Poor's ⁽³⁾	A-1+	AA-	negative
Fitch Ratings ⁽⁴⁾	F1+	AA	negative
Dominion Bond Rating Services ⁽⁵⁾	R-1(high)	AA	negative

- (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) On May 10, 2017, Moody's lowered our senior long-term debt rating one notch, along with our large Canadian peers, due to Moody's change to Canada's macroeconomic profile. Moody's also affirmed our negative outlook.
- (3) On June 6, 2016, S&P revised our outlook to negative from stable.
- (4) On January 25, 2016, Fitch Ratings revised our outlook to negative from stable.
- (5) On May 20, 2015, DBRS revised our outlook to negative from stable.

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 presents 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

(Millions of Canadian dollars)	As at					
	April 30 2017			January 31 2017		
	One-notch downgrade	Two-notch downgrade	Three-notch downgrade	One-notch downgrade	Two-notch downgrade	Three-notch downgrade
Contractual derivatives funding or margin requirements	\$ 307	\$ 119	\$ 306	\$ 602	\$ 139	\$ 382
Other contractual funding or margin requirements ⁽¹⁾	276	65	–	268	72	–

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

Following the downgrade by Moody's on May 10, 2017, we experienced an insignificant increase in collateral pledged largely due to additional market movements.

Liquidity Coverage Ratio (LCR)

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

	For the three-months ended			
	April 30 2017		January 31 2017	
	Total unweighted value (average) (2)	Total weighted value (average)	Total unweighted value (average) (2)	Total weighted value (average)
(Millions of Canadian dollars, except percentage amounts)				
High-quality liquid assets				
Total high-quality liquid assets (HQLA)		197,162		204,885
Cash outflows				
Retail deposits and deposits from small business customers, of which:				
<i>Stable deposits</i> ⁽³⁾	231,401	18,162	231,747	18,183
<i>Less stable deposits</i>	71,116	2,133	71,308	2,139
<i>Less stable deposits</i>	160,285	16,028	160,439	16,044
Unsecured wholesale funding, of which:	240,059	102,723	241,522	105,606
<i>Operational deposits (all counterparties) and deposits in networks of cooperative banks</i> ⁽⁴⁾	106,249	25,601	105,417	25,382
<i>Non-operational deposits</i>	118,011	61,323	119,045	63,165
<i>Unsecured debt</i>	15,799	15,799	17,060	17,060
Secured wholesale funding		24,104		24,023
Additional requirements, of which:	228,674	68,832	228,314	67,752
<i>Outflows related to derivative exposures and other collateral requirements</i>	60,723	37,195	61,055	35,594
<i>Outflows related to loss of funding on debt products</i>	6,144	6,144	6,124	6,124
<i>Credit and liquidity facilities</i>	161,807	25,492	161,134	26,034
Other contractual funding obligations ⁽⁵⁾	31,689	31,689	35,186	35,186
Other contingent funding obligations ⁽⁶⁾	445,906	6,904	446,246	6,784
Total cash outflows		252,414		257,535
Cash inflows				
Secured lending (e.g., reverse repos)	137,709	36,084	125,027	34,130
Inflows from fully performing exposures	10,421	6,957	10,850	7,357
Other cash inflows	49,133	49,133	49,063	49,063
Total cash inflows		92,174		90,550
		Total adjusted value		Total adjusted value
Total HQLA		197,162		204,885
Total net cash outflows		160,239		166,984
Liquidity coverage ratio		123%		123%

- (1) 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 April 30, 2017 is calculated as an average of 61 daily positions (January 31, 2017 – 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 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 non-retail and non-small and medium-sized enterprise customers are deposits which clients need to keep with the bank in order to facilitate their access and ability to use payment and settlement systems primarily for clearing, custody and cash management activities.
- (5) Other contractual funding obligations primarily include outflows from unsettled securities trades and outflows from obligations related to securities sold short.
- (6) Other contingent funding obligations include outflows related to other off-balance sheet facilities that carry low LCR runoff factors (0% – 5%).

We manage our LCR position within a target range that reflects management's 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 80% 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 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 management believes would be available to the Bank in a stress situation. All maturing wholesale debt is assigned 100% outflow in the LCR calculation.

Q2 2017 vs. Q1 2017

The average LCR for the quarter ended April 30, 2017 was unchanged compared to the previous quarter at 123%, which translates into a surplus of approximately \$37 billion.

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.

(Millions of Canadian dollars)	As at April 30, 2017									Total
	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	
Assets										
Cash and deposits with banks	\$ 54,372	\$ 13	\$ 23	\$ 200	\$ –	\$ –	\$ –	\$ –	\$ 1,785	\$ 56,393
Securities										
Trading (1)	96,293	–	25	12	20	62	56	5,969	29,933	132,370
Available-for-sale	1,864	2,799	1,771	1,953	4,121	8,480	25,081	39,366	1,600	87,035
Assets purchased under reverse repurchase agreements and securities borrowed	91,678	54,200	25,567	14,477	15,648	7,999	36	–	7,326	216,931
Loans (net of allowance for loan losses)	15,261	18,250	21,575	21,379	24,727	107,157	197,165	40,701	86,047	532,262
Other										
Customers' liability under acceptances	9,350	5,120	23	–	–	–	6	–	–	14,499
Derivatives	5,832	7,920	4,839	5,050	3,528	10,240	21,919	41,435	–	100,763
Other financial assets	28,544	830	454	226	67	99	146	180	1,732	32,278
Total financial assets	\$ 303,194	\$ 89,132	\$ 54,277	\$ 43,297	\$ 48,111	\$ 134,037	\$ 244,409	\$ 127,651	\$ 128,423	\$ 1,172,531
Other non-financial assets	1,663	1,071	136	968	75	1,198	3,550	2,148	19,579	30,388
Total assets	\$ 304,857	\$ 90,203	\$ 54,413	\$ 44,265	\$ 48,186	\$ 135,235	\$ 247,959	\$ 129,799	\$ 148,002	\$ 1,202,919
Liabilities and equity										
Deposits (2)										
Unsecured borrowing	\$ 37,401	\$ 24,355	\$ 31,866	\$ 25,251	\$ 28,232	\$ 44,808	\$ 51,692	\$ 14,712	\$ 427,516	\$ 685,833
Secured borrowing	1,229	6,302	5,178	3,862	3,902	9,315	21,333	7,078	–	58,199
Covered bonds	–	–	3,407	1,923	1,119	9,012	23,322	2,768	–	41,551
Other										
Acceptances	9,350	5,120	23	–	–	–	6	–	–	14,499
Obligations related to securities sold short	37,331	–	–	–	–	–	–	–	–	37,331
Obligations related to assets sold under repurchase agreements and securities loaned	73,424	45,487	1,201	–	245	9	13	–	7,576	127,955
Derivatives	7,105	8,327	4,408	5,073	3,478	10,771	21,720	38,132	17	99,031
Other financial liabilities	24,033	1,176	446	199	243	148	1,097	3,738	422	31,502
Subordinated debentures	–	–	–	–	–	–	115	9,531	–	9,646
Total financial liabilities	\$ 189,873	\$ 90,767	\$ 46,529	\$ 36,308	\$ 37,219	\$ 74,063	\$ 119,298	\$ 75,959	\$ 435,531	\$ 1,105,547
Other non-financial liabilities	773	655	140	2,043	258	2,492	816	8,711	8,316	24,204
Equity	–	–	–	–	–	–	–	–	73,168	73,168
Total liabilities and equity	\$ 190,646	\$ 91,422	\$ 46,669	\$ 38,351	\$ 37,477	\$ 76,555	\$ 120,114	\$ 84,670	\$ 517,015	\$ 1,202,919
Off-balance sheet items										
Financial guarantees	\$ 723	\$ 2,413	\$ 1,142	\$ 3,720	\$ 1,828	\$ 1,597	\$ 6,244	\$ 974	\$ 65	\$ 18,706
Lease commitments	63	126	188	184	179	709	1,574	2,957	–	5,980
Commitments to extend credit	2,664	5,339	11,046	8,965	11,425	32,307	140,087	16,582	6,944	235,359
Other credit-related commitments	379	884	1,094	1,178	1,459	795	733	285	101,178	107,985
Other commitments	694	–	237	–	–	–	–	–	428	1,359
Total off-balance sheet items	\$ 4,523	\$ 8,762	\$ 13,707	\$ 14,047	\$ 14,891	\$ 35,408	\$ 148,638	\$ 20,798	\$ 108,615	\$ 369,389

(1) Trading debt securities classified as fair value through profit or loss 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, as explained in the preceding Deposit profile section, for our operations and liquidity needs.

	As at January 31, 2017									
(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	\$ 45,483	\$ 404	\$ –	\$ –	\$ 115	\$ –	\$ –	\$ –	\$ 1,741	\$ 47,743
Securities										
Trading (1)	106,441	15	–	23	12	45	88	5,553	30,015	142,192
Available-for-sale	1,639	3,131	1,832	1,629	2,300	10,180	22,847	37,487	1,590	82,635
Assets purchased under reverse repurchase agreements and securities borrowed	88,899	45,366	25,269	13,135	12,612	5,448	294	–	6,262	197,285
Loans (net of allowance for loan losses)	16,279	12,903	20,838	20,821	22,249	108,973	195,878	39,276	84,793	522,010
Other										
Customers' liability under acceptances	9,896	4,041	19	2	–	–	1	–	–	13,959
Derivatives	6,455	7,599	4,328	3,888	4,132	10,049	22,150	38,818	–	97,419
Other financial assets	26,504	779	463	177	161	73	113	180	1,460	29,910
Total financial assets	\$ 301,596	\$ 74,238	\$ 52,749	\$ 39,675	\$ 41,581	\$ 134,768	\$ 241,371	\$ 121,314	\$ 125,861	\$ 1,133,153
Other non-financial assets	1,035	1,396	376	329	171	1,213	3,003	2,026	19,064	28,613
Total assets	\$ 302,631	\$ 75,634	\$ 53,125	\$ 40,004	\$ 41,752	\$ 135,981	\$ 244,374	\$ 123,340	\$ 144,925	\$ 1,161,766
Liabilities and equity										
Deposits (2)										
Unsecured borrowing	\$ 42,441	\$ 26,723	\$ 20,237	\$ 28,398	\$ 24,104	\$ 41,395	\$ 48,236	\$ 18,351	\$ 414,358	\$ 664,243
Secured borrowing	1,155	3,715	7,165	3,937	3,218	7,962	17,737	8,729	–	53,618
Covered bonds	–	–	–	3,246	1,836	7,194	24,787	2,588	–	39,651
Other										
Acceptances	9,896	4,041	19	2	–	–	1	–	–	13,959
Obligations related to securities sold short	37,969	–	–	–	–	–	–	–	–	37,969
Obligations related to assets sold under repurchase agreements and securities loaned (3)	65,327	41,496	6,665	750	412	16	12	–	8,796	123,474
Derivatives	6,804	8,141	4,684	3,279	4,346	11,164	21,120	36,100	8	95,646
Other financial liabilities	22,112	945	389	201	260	146	375	4,284	407	29,119
Subordinated debentures	–	–	–	–	–	–	111	9,376	–	9,487
Total financial liabilities	\$ 185,704	\$ 85,061	\$ 39,159	\$ 39,813	\$ 34,176	\$ 67,877	\$ 112,379	\$ 79,428	\$ 423,569	\$ 1,067,166
Other non-financial liabilities	750	584	172	164	1,875	2,400	819	8,163	7,522	22,449
Equity	–	–	–	–	–	–	–	–	72,151	72,151
Total liabilities and equity	\$ 186,454	\$ 85,645	\$ 39,331	\$ 39,977	\$ 36,051	\$ 70,277	\$ 113,198	\$ 87,591	\$ 503,242	\$ 1,161,766
Off-balance sheet items										
Financial guarantees	\$ 286	\$ 1,484	\$ 2,948	\$ 1,159	\$ 3,582	\$ 1,911	\$ 6,108	\$ 318	\$ 48	\$ 17,844
Lease commitments	59	121	183	181	177	680	1,574	2,536	–	5,511
Commitments to extend credit	968	2,826	6,397	9,389	9,141	35,671	133,912	16,320	4,162	218,786
Other credit-related commitments	713	796	1,226	1,147	1,448	662	705	290	93,804	100,791
Other commitments	685	–	–	–	–	–	–	–	438	1,123
Total off-balance sheet items	\$ 2,711	\$ 5,227	\$ 10,754	\$ 11,876	\$ 14,348	\$ 38,924	\$ 142,299	\$ 19,464	\$ 98,452	\$ 344,055

- (1) Trading debt securities classified as fair value through profit or loss 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, as explained in the preceding Deposit profile section, for our operations and liquidity needs.
- (3) Amounts have been revised from those previously presented.

Capital management

We continue to manage our capital in accordance with our Capital Management Framework as described in our 2016 Annual Report. In addition, we continue to monitor and prepare for new regulatory capital developments 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 Economic, market and regulatory review and outlook section of this Q2 2017 Report to Shareholders.

OSFI expects Canadian banks to currently meet the Basel III “all-in” targets (BCBS January 1, 2019 requirements – minimum ratios plus the capital conservation buffer) for CET1 ratio, Tier 1 and Total capital. To ensure consistent implementation similar to that in other countries, effective January 1, 2014, OSFI allowed Canadian banks to phase in the Basel III CVA capital charge over a five-year period ending December 31, 2018. In 2017, the CVA scalars are 72%, 77%, and 81% for CET1, Tier 1 and Total capital respectively, and will reach 100% for each tier of capital by 2019.

We are required to include an additional 1% risk-weighted capital surcharge given our designation as a D-SIB by OSFI in 2013 (along with five other Canadian banks) as referenced in the table below. In addition, effective in the first quarter of 2017, OSFI has implemented the BCBS requirements for a countercyclical capital buffer, which is calculated as the weighted average of the buffers in effect in the jurisdictions to which banks have a credit exposure. As at April 30, 2017, the impact of the countercyclical buffer on our regulatory target requirements was immaterial.

For consolidated regulatory reporting of operational risk capital, we received approval from OSFI on May 10, 2016 for the use of the Advance Measurement Approach (AMA) for operational risk capital measurement subject to the application of a Standardized Approach (TSA) floor. We commenced reflecting operational risk capital under the AMA in the third quarter of 2016. As such, we currently perform parallel runs of the Standardized Approach and the AMA of determining operational risk capital. Under TSA, operational risk capital is determined based on an OSFI-established percentage of 3 years’ average gross income for pre-determined industry standardized business activities. Under AMA, operational risk capital is determined by using our internal Operational Risk Measurement System, which includes internal loss experience, external loss experience, scenario analysis, and Business Environment Internal Control Factors. RBC Bank (Georgia), RBC Caribbean, and City National will continue using TSA. RBC Insurance (including insurance recoveries) is not in the scope of operational risk capital calculations. We do not account for mitigation through insurance or any other risk transfer mechanism in our AMA model.

The following table provides a summary of OSFI regulatory target ratios under Basel III:

Basel III Capital ratios and leverage	OSFI regulatory target requirements for large banks under Basel III					RBC capital and leverage ratios as at April 30, 2017	Meet or exceed OSFI regulatory target ratios
	Minimum	Capital Buffers ⁽¹⁾	Minimum including Capital Buffers	D-SIB Surcharge ⁽²⁾	Minimum including Capital Buffers and D-SIB surcharge ⁽²⁾		
Common Equity Tier 1	> 4.5%	2.5%	> 7.0%	1.0%	> 8.0%	10.6%	✓
Tier 1 capital	> 6.0%	2.5%	> 8.5%	1.0%	> 9.5%	12.0%	✓
Total capital	> 8.0%	2.5%	> 10.5%	1.0%	> 11.5%	14.1%	✓
Leverage ratio	> 3.0%	n.a.	> 3.0%	n.a.	> 3.0%	4.3%	✓

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

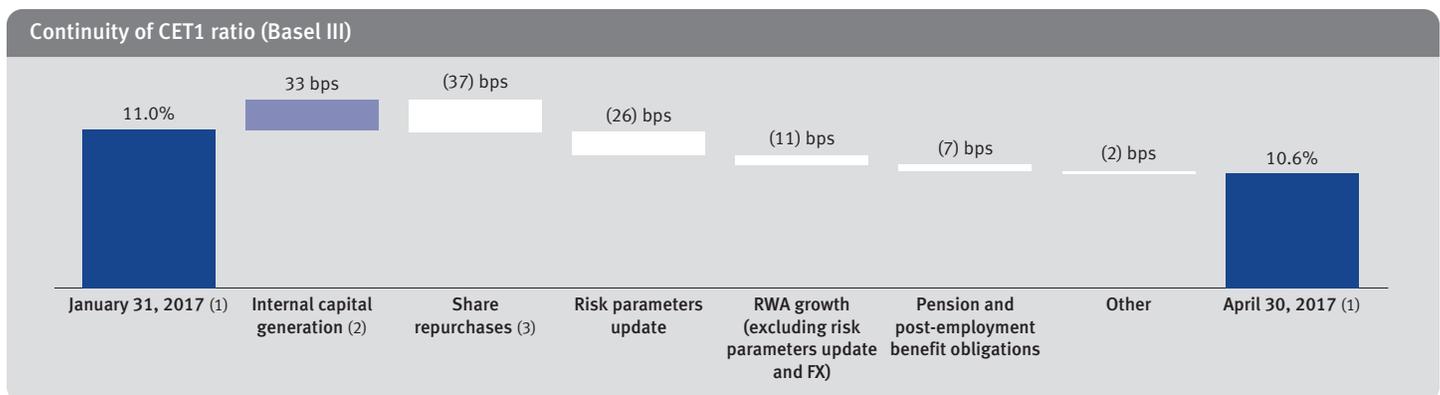
(2) Effective January 1, 2016, the D-SIBs surcharge is applicable to risk-weighted capital.

The following tables provide details on our regulatory capital, RWA and capital ratios. Our capital position remains strong and our capital ratios remain well above OSFI regulatory targets:

(Millions of Canadian dollars, except percentage amounts and as otherwise noted)	As at			
	April 30 2017	January 31 2017	October 31 2016	April 30 2016
Capital ⁽¹⁾				
CET1 capital	\$ 49,598	\$ 48,880	\$ 48,181	\$ 44,717
Tier 1 capital	56,686	55,959	55,270	51,807
Total capital	66,235	65,377	64,950	61,312
Risk-weighted Assets (RWA) used in calculation of capital ratios ^{(1), (2)}				
CET1 capital RWA	469,718	442,508	447,436	434,797
Tier 1 capital RWA	470,528	443,304	448,662	436,063
Total capital RWA	471,176	443,940	449,712	437,148
Total capital RWA consisting of: ⁽¹⁾				
Credit risk	\$ 385,065	\$ 362,051	\$ 369,751	\$ 352,819
Market risk	28,429	25,095	23,964	30,311
Operational risk	57,682	56,794	55,997	54,018
Total capital RWA	\$ 471,176	\$ 443,940	\$ 449,712	\$ 437,148
Capital ratios and Leverage ratio ^{(1), (3)}				
CET1 ratio	10.6%	11.0%	10.8%	10.3%
Tier 1 capital ratio	12.0%	12.6%	12.3%	11.9%
Total capital ratio	14.1%	14.7%	14.4%	14.0%
Leverage ratio	4.3%	4.4%	4.4%	4.2%
Leverage ratio exposure (billions)	\$ 1,311.7	\$ 1,260.0	\$ 1,265.1	\$ 1,228.3

- (1) Capital, RWA, and capital ratios are calculated using OSFI Capital Adequacy Requirements based on the Basel III framework. Leverage ratios are calculated using OSFI Leverage Requirements Guideline based on the Basel III framework.
- (2) In 2016, the CVA scalars of 64%, 71% and 77% were applied to CET1, Tier 1 and Total Capital, respectively. In fiscal 2017, the CVA scalars are 72%, 77% and 81%, respectively.
- (3) To enhance comparability among other global financial institutions, our transitional CET1, Tier 1, Total capital and leverage ratios as at April 30, 2017 were 11.1%, 12.1%, 14.1%, and 4.4%, respectively. Transitional is defined as capital calculated according to the current year's phase-in of regulatory adjustments and phase-out of non-qualifying capital instruments.

Q2 2017 vs. Q1 2017



- (1) Represents rounded figures.
- (2) Internal capital generation includes \$1.5 billion which represents Net income available to shareholders, less common and preferred shares dividends.
- (3) Reflects impact related to the repurchase of common shares in the three months ended April 30, 2017, less 10.2 million common shares accrued in Q1 2017.

Our CET1 ratio was 10.6%, down 40 bps from last quarter, mainly reflecting share repurchases, an update to our corporate and business lending risk parameters, higher RWA (excluding the impact of our risk parameters update and foreign exchange translation), and the unfavorable impact of lower discount rates in determining our pension and other post-employment benefit obligations, partially offset by internal capital generation.

CET1 capital RWA increased \$27 billion, mainly due to the impact of foreign exchange translation, an update to our corporate and business lending risk parameters, and RWA growth primarily in our underwriting businesses. Our risk parameters are validated and updated on a regular basis.

Our Tier 1 capital ratio of 12.0% was down 60 bps, mainly reflecting the factors noted above under CET1 ratio.

Our Total capital ratio of 14.1% was down 60 bps, mainly reflecting the factors noted above under CET1 ratio.

Our Leverage ratio of 4.3% was down 10 bps from last quarter, mainly reflecting share repurchases, the impact of foreign exchange translation, higher leverage ratio exposures (excluding the impact of foreign exchange translation) primarily in repo-style transactions, and the unfavorable impact of lower discount rates in determining our pension and other post-employment benefit obligations. These factors were partially offset by internal capital generation.

Q2 2017 vs. Q4 2016

Our CET1 ratio was down 20 bps from October 31, 2016, mainly due to share repurchases, an update to our corporate and business lending risk parameters, and higher RWA (excluding the impact of our risk parameters update and foreign exchange translation). These factors were partially offset by internal capital generation.

CET1 capital RWA was up \$22 billion, primarily due to an update to our corporate and business lending risk parameters. Higher RWA reflecting the impact of new regulatory frameworks, growth in our market risk portfolios and underwriting businesses, and the impact of foreign exchange translation also contributed to the increase.

Our Tier 1 capital ratio was down 30 bps, mainly reflecting the factors noted above under CET1 ratio.

Our Total capital ratio was down 30 bps from the prior year, mainly reflecting the factors noted above under CET1 ratio.

Our Leverage ratio was down 10 bps, mainly reflecting share repurchases and higher leverage ratio exposures (excluding the impact of foreign exchange translation) primarily in repo-style transactions. These factors were partially offset by internal capital generation.

Selected capital management activity

The following table provides our selected capital management activity:

(Millions of Canadian dollars, except number of shares)	For the three months ended April 30, 2017		For the six months ended April 30, 2017	
	Number of shares (000s)	Amount	Number of shares (000s)	Amount
Tier 1 capital				
Common shares activity				
Issued in connection with share-based compensation plans (1)	739	\$ 50	2,218	\$ 146
Purchased for cancellation (2), (3)	(18,988)	(231)	(30,321)	(368)

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

(2) Based on book value.

(3) For the three months ended April 30, 2017, amounts exclude 10.2 million common shares which were accrued for in the first quarter of 2017 as the expected number of common shares we were obligated to repurchase under a specific share repurchase program as at January 31, 2017.

On March 9, 2017, we announced that the TSX approved our normal course issuer bid (NCIB) to purchase up to 30 million of our common shares, commencing on March 14, 2017 and continuing until March 10, 2018, 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 such repurchased shares will be the prevailing market price at the time of acquisition. Purchases may also be made through other means permitted by the TSX and applicable securities laws, including under specific share repurchase programs pursuant to issuer bid exemption orders issued by applicable securities regulatory authorities. Any purchases made under an exemption order will generally be at a discount to the prevailing market price.

The announcement also included two specific share repurchase programs to purchase up to 10 million common shares and 5 million common shares, respectively. These programs were completed on March 31, 2017 and April 27, 2017, respectively, and all 15 million common shares were repurchased. These purchases were made at a discount to the prevailing market price and counted towards our 30 million NCIB limit. Our previous NCIB, which commenced on June 1, 2016, was completed on March 7, 2017, with a total of 20 million of our common shares repurchased.

For the three months ended April 30, 2017, the total number of common shares repurchased was approximately 29.2 million, at a total cost of \$2,486 million, of which 10.2 million shares were accrued for in the first quarter of 2017. The total cost of the remaining 19 million shares repurchased during the quarter was \$1,637 million, which was comprised of a book value of \$231 million, with an additional \$1,406 million premium paid on repurchase.

For the six months ended April 30, 2017, the total number of common shares repurchased was approximately 30.3 million. The total cost of the shares repurchased was \$2,588 million, which was comprised of a book value of \$368 million, with an additional \$2,220 million premium paid on repurchase.

On April 28, 2017, we announced our intention to redeem all ¥10,000 million outstanding 2.86% subordinated debentures due June 26, 2037 for 100% of their principal amount plus accrued interest to and including the redemption date of June 26, 2017. The redemption will be financed out of general corporate funds.

Selected share data ⁽¹⁾

(Millions of Canadian dollars, except number of shares and as otherwise noted)	As at April 30, 2017		
	Number of shares (000s)	Amount	Dividends declared per share
Common shares outstanding ⁽¹⁾	1,457,291	\$17,717	\$ 0.87
First preferred shares outstanding			
Non-cumulative Series W ⁽²⁾	12,000	300	0.31
Non-cumulative Series AA	12,000	300	0.28
Non-cumulative Series AB	12,000	300	0.29
Non-cumulative Series AC	8,000	200	0.29
Non-cumulative Series AD	10,000	250	0.28
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	0.15
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 C-1 ⁽⁵⁾	82	107	US\$ 13.75
Non-cumulative Series C-2 ⁽⁵⁾	20	31	US\$ 16.88
Treasury shares held – preferred	(24)	(1)	
Treasury shares held – common	(227)	(10)	
Stock options			
Outstanding	10,612		
Exercisable	5,595		
Dividends			
Common		1,271	
Preferred		77	

(1) For further details about our capital management activity, refer to Note 10 of our Condensed Financial Statements.

(2) Effective February 24, 2010, we have the right to convert into common shares at our option, subject to certain restrictions.

(3) Dividend rate will reset every five years.

(4) NVCC capital instruments.

(5) Represents 3,282,000 and 815,400 depositary shares relating to preferred shares Series C-1 and Series C-2, respectively. Each depositary share represents one-fortieth interest in a share of Series C-1 and Series C-2, respectively.

As at May 19, 2017, the number of outstanding common shares and stock options and awards was 1,457,341,110 and 10,554,918, respectively, and the number of Treasury shares – preferred and Treasury shares – common was 15,706 and (444,295), respectively.

NVCC provisions require the conversion of the capital instrument into a variable number of common shares in the event that OSFI deems the Bank to be non-viable or a federal or provincial government in Canada publicly announces that the 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, 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 2,773 million RBC common shares, in aggregate, which would represent a dilution impact of 65.55% based on the number of RBC common shares outstanding as at April 30, 2017.

Attributed capital

Our methodology for allocating capital to our business segments is based on the higher of fully diversified economic capital and the Basel III regulatory capital requirements. Risk-based capital attribution provides a uniform base for performance measurement among business segments, which compares to our overall corporate return objective and facilitates management decisions in resource allocation in conjunction with other factors.

The following outlines our attributed capital:

(Millions of Canadian dollars)	April 30 2017	For the three months ended		
		January 31 2017	October 31 2016	April 30 2016
Credit risk	\$ 21,000	\$ 21,050	\$ 20,500	\$ 20,600
Market risk (trading and non-trading)	3,100	3,150	3,000	3,050
Operational risk	5,300	5,100	5,000	4,900
Business and fixed asset risk	3,250	3,150	3,100	3,100
Insurance risk	650	600	600	650
Goodwill and other intangibles	15,800	15,700	15,750	16,100
Regulatory capital allocation	10,800	11,050	8,800	10,000
Attributed capital	\$ 59,900	\$ 59,800	\$ 56,750	\$ 58,400
Unattributed capital	4,900	4,850	6,350	4,000
Average common equity	\$ 64,800	\$ 64,650	\$ 63,100	\$ 62,400

Q2 2017 vs. Q1 2017

Attributed capital was relatively unchanged as higher Operational and Business risks, reflecting revenue growth in the current quarter, was mostly offset by lower Regulatory capital allocation.

We remain well capitalized with current levels of available capital exceeding the attributed capital required to underpin all of our material risks.

Additional financial information

Exposure to U.S. subprime and Alt-A through RMBS, CDOs and mortgages

Certain activities and transactions we enter into expose us to the risk of default of U.S. subprime and Alt-A residential mortgages. Our exposures to U.S. subprime and Alt-A residential mortgages of \$76 million represented less than 0.1% of our total assets as at April 30, 2017, compared to \$257 million or less than 0.1% last year. The decrease of \$181 million was primarily due to the sale of certain securities.

Commercial mortgage-backed securities

The fair value of our total direct holdings of Canadian and U.S. commercial mortgage-backed securities was \$511 million as at April 30, 2017.

Assets and liabilities measured at fair value

Our financial instruments carried at fair value are classified as Level 1, 2 or 3, in accordance with the fair value hierarchy set out in International Financial Reporting Standards (IFRS) 13, *Fair Value Measurement*. For further details on the fair value of our financial instruments and transfers between levels of the fair value hierarchy, refer to Note 3 of our audited 2016 Annual Consolidated Financial Statements.

The following table presents the total fair value of each major class of financial assets and financial liabilities measured at fair value and the percentage of the fair value of each class categorized as Level 1, 2 or 3:

(Millions of Canadian dollars, except percentage amounts)	As at April 30, 2017				
	Fair value	Level 1	Level 2	Level 3	Total
Financial assets					
Securities at FVTPL	\$ 132,370	32%	68%	–%	100%
Available-for-sale	71,578	1	95	4	100
Assets purchased under reverse repurchase agreements and securities borrowed	136,452	–	100	–	100
Loans	4,521	–	89	11	100
Derivatives ⁽¹⁾	180,650	2	98	–	100
Financial liabilities					
Deposits	\$ 105,592	–%	100%	–%	100%
Obligations related to securities sold short	37,331	48	52	–	100
Obligations related to assets sold under repurchase agreements and securities loaned	120,243	–	100	–	100
Derivatives ⁽¹⁾	179,044	1	98	1	100

(1) The derivative assets and liabilities presented in the table above do not reflect the impact of netting.

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*. The significant accounting policies are described in Note 2 of our audited 2016 Annual Consolidated Financial Statements.

Future changes in accounting policies and disclosures

In May 2017, the IASB issued IFRS 17, *Insurance Contracts*, to establish a comprehensive global insurance standard which provides guidance on the recognition, measurement, presentation and disclosures of insurance contracts. This new standard will be effective for us on November 1, 2021. We are currently assessing the impact of adopting this standard on our Consolidated Financial Statements.

Regulatory developments

BCBS Pillar 3 disclosure requirements

On March 29, 2017, the BCBS issued its Pillar 3 disclosure requirements standard entitled *Pillar 3 disclosure requirements – consolidated and enhanced framework*. The enhancements include the addition of a dashboard of key metrics and a draft disclosure requirement of hypothetical RWA calculated based on the Basel framework's standardized approaches. The standard also includes enhanced granularity for disclosure of prudent valuation adjustments and incorporates additions to the Pillar 3 framework to reflect ongoing reforms to the regulatory framework such as the total loss-absorbing capacity regime for global systemically important banks, the proposed operational risk framework, and the final standard for market risk. The standard also consolidates all existing Pillar 3 disclosure requirements of the Basel framework, including the leverage and liquidity ratios disclosure templates. Together with the *Revised Pillar 3 disclosure requirements* issued in January 2015, these disclosure requirements comprise the single Pillar 3 framework.

In April 2017, OSFI issued a guideline indicating that all domestic systemically important banks are expected to implement the *Revised Pillar 3 disclosure requirements* for the reporting period ending October 31, 2018. OSFI's guideline on the implementation of the *Pillar 3 disclosure requirements – consolidated and enhanced framework* has not yet been issued. We expect the guidance from OSFI to be issued in 2017.

BCBS guidance on regulatory capital treatment of accounting provisions

On March 29, 2017, the BCBS issued a standard with details on the interim regulatory treatment of accounting provisions under the Basel III regulatory capital framework. The standard addresses the impact of new expected credit loss accounting requirements under IFRS 9 *Financial Instruments* (IFRS 9) that will replace the current incurred loss models used for accounting purposes. IFRS 9 will be effective for us on November 1, 2017. For further details on the adoption of IFRS 9, including applicable regulatory guidance, refer to the Critical accounting policies and estimates section of our 2016 Annual Report.

The standard retains the current regulatory treatment of accounting provisions under the standardized and the internal ratings-based approaches until a longer-term solution is developed. It also sets out transitional arrangements which allow for a phase-in of the impact of the new expected credit loss accounting standard on regulatory capital for up to five years, should individual jurisdictions choose to provide capital relief. Final OSFI guidance on the regulatory capital impact of IFRS 9 is expected to be provided before the end of 2017.

Controls and procedures

Disclosure controls and procedures

As of April 30, 2017, 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 April 30, 2017.

Internal control over financial reporting

No changes were made in our internal control over financial reporting during the quarter ended April 30, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Related party transactions

In the ordinary course of business, we provide normal banking services and operational services, and enter into other transactions with associated and other related corporations, including our joint venture entities, on terms similar to those offered to non-related parties. We grant loans to directors, officers and other employees at rates normally accorded to preferred clients. In addition, we offer deferred share and other plans to non-employee directors, executives and certain other key employees. For further information, refer to Notes 12 and 29 of our audited 2016 Annual Consolidated Financial Statements.

EDTF recommendations index

On October 29, 2012, the Enhanced Disclosure Task Force (EDTF), established by the Financial Stability Board, issued its report Enhancing the Risk Disclosures of Banks, which included 32 recommendations aimed at achieving transparent, high-quality risk disclosures. As a result, our enhanced disclosures have been provided in our 2016 Annual Report, Q2 2017 Report to Shareholders (RTS) and Supplementary Financial Information package (SFI).

The following index summarizes our disclosure by EDTF recommendation:

Type of Risk	Recommendation	Disclosure	Location of disclosure		
			RTS page	Annual Report page	SFI page
General	1	Table of contents for EDTF risk disclosure	54	115	1
	2	Define risk terminology and measures		49-54, 207-209	–
	3	Top and emerging risks		47-49	–
	4	New regulatory ratios	48	90-93	–
Risk governance, risk management and business model	5	Risk management organization		49-54	–
	6	Risk culture		49-51	–
	7	Risk in the context of our business activities		98	–
	8	Stress testing		51-52, 67	–
Capital adequacy and risk-weighted assets (RWA)	9	Minimum Basel III capital ratios and Domestic systemically important bank surcharge	48	90-93	–
	10	Composition of capital and reconciliation of the accounting balance sheet to the regulatory balance sheet		–	21-24
	11	Flow statement of the movements in regulatory capital		–	25
	12	Capital strategic planning		89-93	–
	13	RWA by business segments		–	28
	14	Analysis of capital requirement, and related measurement model information		54-58	26-27
	15	RWA credit risk and related risk measurements		–	42-44
	16	Movement of risk-weighted assets by risk type		–	28
Liquidity	17	Basel back-testing		52,56	42
	18	Quantitative and qualitative analysis of our liquidity reserve	41	73-75, 78-79	–
Funding	19	Encumbered and unencumbered assets by balance sheet category, and contractual obligations for rating downgrades	41-42, 44	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	46-47	80-81	–
	21	Sources of funding and funding strategy	42-43	75-77	–
Market risk	22	Relationship between the market risk measures for trading and non-trading portfolios and the balance sheet	39-40	71-72	–
	23	Decomposition of market risk factors	36-38	66-70	–
	24	Market risk validation and back-testing		67	–
	25	Primary risk management techniques beyond reported risk measures and parameters		66-71	–
Credit risk	26	Bank's credit risk profile	29-35	54-66, 156-158	31-44
		Quantitative summary of aggregate credit risk exposures that reconciles to the balance sheet	70-71	110-114	40
	27	Policies for identifying impaired loans		57-58, 101, 131-132	–
	28	Reconciliation of the opening and closing balances of impaired loans and impairment allowances during the year		–	33,37
	29	Quantification of gross notional exposure for OTC derivatives or exchange-traded derivatives		60	46
	30	Credit risk mitigation, including collateral held for all sources of credit risk		57	41
Other	31	Other risk types		82-89	–
	32	Publicly known risk events		85-87, 195-196	–

Interim Condensed Consolidated Financial Statements (unaudited)

Interim Condensed Consolidated Balance Sheets (unaudited)

(Millions of Canadian dollars)	As at	
	April 30 2017	October 31 2016
Assets		
Cash and due from banks	\$ 30,518	\$ 14,929
Interest-bearing deposits with banks	25,875	27,851
Securities		
Trading	132,370	151,292
Available-for-sale (Note 4)	87,035	84,801
	219,405	236,093
Assets purchased under reverse repurchase agreements and securities borrowed	216,931	186,302
Loans (Note 5)		
Retail	374,168	369,470
Wholesale	160,352	154,369
	534,520	523,839
Allowance for loan losses (Note 5)	(2,258)	(2,235)
	532,262	521,604
Segregated fund net assets	1,096	981
Other		
Customers' liability under acceptances	14,499	12,843
Derivatives	100,763	118,944
Premises and equipment, net	2,754	2,836
Goodwill	11,352	11,156
Other intangibles	4,640	4,648
Other assets	42,824	42,071
	176,832	192,498
Total assets	\$ 1,202,919	\$ 1,180,258
Liabilities and equity		
Deposits (Note 7)		
Personal	\$ 259,319	\$ 250,550
Business and government	498,231	488,007
Bank	28,033	19,032
	785,583	757,589
Segregated fund net liabilities	1,096	981
Other		
Acceptances	14,499	12,843
Obligations related to securities sold short	37,331	50,369
Obligations related to assets sold under repurchase agreements and securities loaned	127,955	103,441
Derivatives	99,031	116,550
Insurance claims and policy benefit liabilities	9,262	9,164
Other liabilities	45,348	47,947
	333,426	340,314
Subordinated debentures	9,646	9,762
Total liabilities	1,129,751	1,108,646
Equity attributable to shareholders		
Preferred shares	6,712	6,713
Common shares (shares issued – 1,457,063,157 and 1,484,234,375) (Note 10)	17,707	17,859
Retained earnings	42,538	41,519
Other components of equity	5,613	4,926
	72,570	71,017
Non-controlling interests	598	595
Total equity	73,168	71,612
Total liabilities and equity	\$ 1,202,919	\$ 1,180,258

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		For the six months ended	
	April 30 2017	April 30 2016	April 30 2017	April 30 2016
(Millions of Canadian dollars, except per share amounts)				
Interest income				
Loans	\$ 4,497	\$ 4,374	\$ 9,078	\$ 8,808
Securities	1,230	1,138	2,451	2,322
Assets purchased under reverse repurchase agreements and securities borrowed	698	445	1,301	850
Deposits and other	66	44	120	77
	6,491	6,001	12,950	12,057
Interest expense				
Deposits and other	1,513	1,368	3,017	2,661
Other liabilities	715	547	1,280	1,077
Subordinated debentures	65	61	131	98
	2,293	1,976	4,428	3,836
Net interest income	4,198	4,025	8,522	8,221
Non-interest income				
Insurance premiums, investment and fee income	1,448	1,351	1,945	2,510
Trading revenue	181	181	444	271
Investment management and custodial fees	1,158	1,031	2,286	2,085
Mutual fund revenue	749	695	1,494	1,414
Securities brokerage commissions	360	360	759	727
Service charges	437	435	875	866
Underwriting and other advisory fees	590	469	1,058	843
Foreign exchange revenue, other than trading	236	376	463	558
Card service revenue	241	226	477	442
Credit fees	358	307	714	570
Net gains on available-for-sale securities (Note 4)	54	15	81	67
Share of profit in joint ventures and associates (Note 6)	41	41	292	88
Other	259	14	446	223
	6,112	5,501	11,334	10,664
Total revenue	10,310	9,526	19,856	18,885
Provision for credit losses (Note 5)	302	460	596	870
Insurance policyholder benefits, claims and acquisition expense	1,090	988	1,273	1,817
Non-interest expense				
Human resources (Note 8)	3,241	3,014	6,504	6,090
Equipment	344	358	700	714
Occupancy	404	382	803	775
Communications	241	224	462	427
Professional fees	265	247	520	487
Amortization of other intangibles	251	229	503	463
Other	483	433	952	891
	5,229	4,887	10,444	9,847
Income before income taxes	3,689	3,191	7,543	6,351
Income taxes	880	618	1,707	1,331
Net income	\$ 2,809	\$ 2,573	\$ 5,836	\$ 5,020
Net income attributable to:				
Shareholders	\$ 2,801	\$ 2,560	\$ 5,816	\$ 4,986
Non-controlling interests	8	13	20	34
	\$ 2,809	\$ 2,573	\$ 5,836	\$ 5,020
Basic earnings per share (in dollars) (Note 11)	\$ 1.86	\$ 1.67	\$ 3.84	\$ 3.26
Diluted earnings per share (in dollars) (Note 11)	1.85	1.66	3.82	3.25
Dividends per common share (in dollars)	0.87	0.81	1.70	1.60

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

Interim Condensed Consolidated Statements of Comprehensive Income (unaudited)

(Millions of Canadian dollars)	For the three months ended		For the six months ended	
	April 30 2017	April 30 2016	April 30 2017	April 30 2016
Net income	\$ 2,809	\$ 2,573	\$ 5,836	\$ 5,020
Other comprehensive income (loss), net of taxes				
Items that will be reclassified subsequently to income:				
Net change in unrealized gains (losses) on available-for-sale securities				
Net unrealized gains (losses) on available-for-sale securities	128	50	(1)	69
Reclassification of net losses (gains) on available-for-sale securities to income	(37)	(18)	(49)	(53)
	91	32	(50)	16
Foreign currency translation adjustments				
Unrealized foreign currency translation gains (losses)	2,595	(5,152)	1,133	(2,133)
Net foreign currency translation gains (losses) from hedging activities	(1,005)	2,016	(462)	844
Reclassification of losses (gains) on foreign currency translation to income	–	–	(10)	–
	1,590	(3,136)	661	(1,289)
Net change in cash flow hedges				
Net gains (losses) on derivatives designated as cash flow hedges	(86)	230	10	141
Reclassification of losses (gains) on derivatives designated as cash flow hedges to income	31	(88)	68	(58)
	(55)	142	78	83
Items that will not be reclassified subsequently to income:				
Remeasurements of employee benefit plans (Note 8)	(275)	(216)	322	(670)
Net fair value change due to credit risk on financial liabilities designated as at fair value through profit or loss	(212)	(265)	(245)	(145)
	(487)	(481)	77	(815)
Total other comprehensive income (loss), net of taxes	1,139	(3,443)	766	(2,005)
Total comprehensive income (loss)	\$ 3,948	\$ (870)	\$ 6,602	\$ 3,015
Total comprehensive income attributable to:				
Shareholders	\$ 3,935	\$ (875)	\$ 6,580	\$ 2,984
Non-controlling interests	13	5	22	31
	\$ 3,948	\$ (870)	\$ 6,602	\$ 3,015

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

(Millions of Canadian dollars)	For the three months ended		For the six months ended	
	April 30 2017	April 30 2016	April 30 2017	April 30 2016
Income taxes on other comprehensive income				
Net unrealized gains (losses) on available-for-sale securities	\$ 57	\$ 15	\$ (11)	\$ 45
Reclassification of net losses (gains) on available-for-sale securities to income	(16)	(6)	(20)	(21)
Unrealized foreign currency translation gains (losses)	4	(6)	2	(2)
Net foreign currency translation gains (losses) from hedging activities	(342)	705	(159)	288
Net gains (losses) on derivatives designated as cash flow hedges	(32)	83	4	51
Reclassification of losses (gains) on derivatives designated as cash flow hedges to income	11	(32)	24	(21)
Remeasurements of employee benefit plans	(100)	(89)	106	(241)
Net fair value change due to credit risk on financial liabilities designated as at fair value through profit or loss	(81)	(99)	(94)	(56)
Total income tax expenses (recoveries)	\$ (499)	\$ 571	\$ (148)	\$ 43

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

Interim Condensed Consolidated Statements of Changes in Equity (unaudited)

	Other components of equity										Equity attributable to shareholders	Non-controlling interests	Total equity
	Preferred shares	Common shares	Treasury shares – preferred	Treasury shares – common	Retained earnings	Available-for-sale securities	Foreign currency translation	Cash flow hedges	Total other components of equity	Equity attributable to shareholders			
Balance at January 31, 2016	\$ 6,205	\$ 17,774	\$ (1)	\$ 88	\$ 38,856	\$ 299	\$ 6,269	\$ (175)	\$ 6,393	\$ 69,315	\$ 573	\$ 69,888	
Changes in equity													
Issues of share capital	750	109	–	–	(9)	–	–	–	–	850	–	850	
Preferred shares purchased for cancellation	(242)	–	–	–	(22)	–	–	–	–	(264)	–	(264)	
Sales of treasury shares	–	–	64	1,425	–	–	–	–	–	1,489	–	1,489	
Purchases of treasury shares	–	–	(63)	(1,600)	–	–	–	–	–	(1,663)	–	(1,663)	
Share-based compensation awards	–	–	–	–	(26)	–	–	–	–	(26)	–	(26)	
Dividends on common shares	–	–	–	–	(1,206)	–	–	–	–	(1,206)	–	(1,206)	
Dividends on preferred shares and other	–	–	–	–	(74)	–	–	–	–	(74)	–	(74)	
Other	–	–	–	–	(8)	–	–	–	–	(8)	–	(8)	
Net income	–	–	–	–	2,560	–	–	–	–	2,560	–	2,560	
Total other comprehensive income (loss), net of taxes	–	–	–	–	(481)	32	(3,128)	142	(2,954)	(3,435)	(8)	(3,443)	
Balance at April 30, 2016	\$ 6,713	\$ 17,883	\$ –	\$ (87)	\$ 39,590	\$ 331	\$ 3,141	\$ (33)	\$ 3,439	\$ 67,538	\$ 588	\$ 68,126	
Balance at January 31, 2017	\$ 6,713	\$ 17,898	\$ –	\$ (33)	\$ 42,996	\$ 199	\$ 3,759	\$ 34	\$ 3,992	\$ 71,566	\$ 585	\$ 72,151	
Changes in equity													
Issues of share capital	–	50	–	–	(1)	–	–	–	–	49	–	49	
Common shares purchased for cancellation	–	(231)	–	–	(1,406)	–	–	–	–	(1,637)	–	(1,637)	
Sales of treasury shares	–	–	23	1,124	–	–	–	–	–	1,147	–	1,147	
Purchases of treasury shares	–	–	(24)	(1,101)	–	–	–	–	–	(1,125)	–	(1,125)	
Share-based compensation awards	–	–	–	–	(13)	–	–	–	–	(13)	–	(13)	
Dividends on common shares	–	–	–	–	(1,271)	–	–	–	–	(1,271)	–	(1,271)	
Dividends on preferred shares and other	–	–	–	–	(77)	–	–	–	–	(77)	–	(77)	
Other	–	–	–	–	(4)	–	–	–	–	(4)	–	(4)	
Net income	–	–	–	–	2,801	–	–	–	–	2,801	8	2,809	
Total other comprehensive income (loss), net of taxes	–	–	–	–	(487)	91	1,585	(55)	1,621	1,134	5	1,139	
Balance at April 30, 2017	\$ 6,713	\$ 17,717	\$ (1)	\$ (10)	\$ 42,538	\$ 290	\$ 5,344	\$ (21)	\$ 5,613	\$ 72,570	\$ 598	\$ 73,168	

	Other components of equity										Equity attributable to shareholders	Non-controlling interests	Total equity
	Preferred shares	Common shares	Treasury shares – preferred	Treasury shares – common	Retained earnings	Available-for-sale securities	Foreign currency translation	Cash flow hedges	Total other components of equity	Equity attributable to shareholders			
Balance at October 31, 2015	\$ 5,100	\$ 14,573	\$ (2)	\$ 38	\$ 37,811	\$ 315	\$ 4,427	\$ (116)	\$ 4,626	\$ 62,146	\$ 1,798	\$ 63,944	
Changes in equity													
Issues of share capital	1,855	3,310	–	–	(16)	–	–	–	–	5,149	–	5,149	
Preferred shares purchased for cancellation	(242)	–	–	–	(22)	–	–	–	–	(264)	–	(264)	
Redemption of trust capital securities	–	–	–	–	–	–	–	–	–	–	(1,200)	(1,200)	
Sales of treasury shares	–	–	104	2,414	–	–	–	–	–	2,518	–	2,518	
Purchases of treasury shares	–	–	(102)	(2,539)	–	–	–	–	–	(2,641)	–	(2,641)	
Share-based compensation awards	–	–	–	–	(32)	–	–	–	–	(32)	–	(32)	
Dividends on common shares	–	–	–	–	(2,381)	–	–	–	–	(2,381)	–	(2,381)	
Dividends on preferred shares and other	–	–	–	–	(134)	–	–	–	–	(134)	(46)	(180)	
Other	–	–	–	–	193	–	–	–	–	193	5	198	
Net income	–	–	–	–	4,986	–	–	–	–	4,986	34	5,020	
Total other comprehensive income (loss), net of taxes	–	–	–	–	(815)	16	(1,286)	83	(1,187)	(2,002)	(3)	(2,005)	
Balance at April 30, 2016	\$ 6,713	\$ 17,883	\$ –	\$ (87)	\$ 39,590	\$ 331	\$ 3,141	\$ (33)	\$ 3,439	\$ 67,538	\$ 588	\$ 68,126	
Balance at October 31, 2016	\$ 6,713	\$ 17,939	\$ –	\$ (80)	\$ 41,519	\$ 340	\$ 4,685	\$ (99)	\$ 4,926	\$ 71,017	\$ 595	\$ 71,612	
Changes in equity													
Issues of share capital	–	146	–	–	(1)	–	–	–	–	145	–	145	
Common shares purchased for cancellation	–	(368)	–	–	(2,220)	–	–	–	–	(2,588)	–	(2,588)	
Sales of treasury shares	–	–	44	2,315	–	–	–	–	–	2,359	–	2,359	
Purchases of treasury shares	–	–	(45)	(2,245)	–	–	–	–	–	(2,290)	–	(2,290)	
Share-based compensation awards	–	–	–	–	(25)	–	–	–	–	(25)	–	(25)	
Dividends on common shares	–	–	–	–	(2,503)	–	–	–	–	(2,503)	–	(2,503)	
Dividends on preferred shares and other	–	–	–	–	(152)	–	–	–	–	(152)	(17)	(169)	
Other	–	–	–	–	27	–	–	–	–	27	(2)	25	
Net income	–	–	–	–	5,816	–	–	–	–	5,816	20	5,836	
Total other comprehensive income (loss), net of taxes	–	–	–	–	77	(50)	659	78	687	764	2	766	
Balance at April 30, 2017	\$ 6,713	\$ 17,717	\$ (1)	\$ (10)	\$ 42,538	\$ 290	\$ 5,344	\$ (21)	\$ 5,613	\$ 72,570	\$ 598	\$ 73,168	

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

Interim Condensed Consolidated Statements of Cash Flows (unaudited)

(Millions of Canadian dollars)	For the three months ended		For the six months ended	
	April 30 2017	April 30 2016	April 30 2017	April 30 2016
Cash flows from operating activities				
Net income	\$ 2,809	\$ 2,573	\$ 5,836	\$ 5,020
Adjustments for non-cash items and others				
Provision for credit losses	302	460	596	870
Depreciation	146	136	308	288
Deferred income taxes	(274)	(188)	30	(97)
Amortization and impairment of other intangibles	251	232	503	466
Net changes in investments in joint ventures and associates	(40)	(37)	(290)	(78)
Losses (Gains) on sale of premises and equipment	–	2	(7)	3
Losses (Gains) on available-for-sale securities	(77)	(32)	(123)	(107)
Losses (Gains) on disposition of business	2	6	2	14
Impairment of available-for-sale securities	14	14	31	38
Adjustments for net changes in operating assets and liabilities				
Insurance claims and policy benefit liabilities	477	325	98	520
Net change in accrued interest receivable and payable	(5)	148	(191)	(73)
Current income taxes	(419)	1,081	(1,534)	877
Derivative assets	(3,344)	17,262	18,181	(9,578)
Derivative liabilities	3,385	(15,544)	(17,519)	8,522
Trading securities	9,821	9,531	18,894	6,167
Loans, net of securitizations	(10,271)	7,835	(10,686)	(6,121)
Assets purchased under reverse repurchase agreements and securities borrowed	(19,646)	11,418	(30,629)	(9,892)
Deposits, net of securitizations	28,071	(27,303)	27,994	2,796
Obligations related to assets sold under repurchase agreements and securities loaned	4,481	(2,736)	24,514	13,286
Obligations related to securities sold short	(638)	(4,810)	(13,038)	(537)
Brokers and dealers receivable and payable	177	(411)	182	205
Other	(1,564)	9,859	(2,118)	3,347
Net cash from (used in) operating activities	13,658	9,821	21,034	15,936
Cash flows from investing activities				
Change in interest-bearing deposits with banks	(3,495)	(5,320)	1,976	(4,487)
Proceeds from sale of available-for-sale securities	3,038	1,341	5,272	3,966
Proceeds from maturity of available-for-sale securities	9,507	7,157	20,528	13,815
Purchases of available-for-sale securities	(13,396)	(13,407)	(27,149)	(22,900)
Proceeds from maturity of held-to-maturity securities	177	98	474	1,076
Purchases of held-to-maturity securities	(313)	(619)	(886)	(1,167)
Net acquisitions of premises and equipment and other intangibles	(414)	(150)	(671)	(557)
Cash used in acquisitions	–	–	–	(2,964)
Net cash from (used in) investing activities	(4,896)	(10,900)	(456)	(13,218)
Cash flows from financing activities				
Redemption of trust capital securities	–	–	–	(1,200)
Issue of subordinated debentures	–	–	–	3,606
Repayment of subordinated debentures	–	–	–	(1,500)
Issue of common shares	38	109	134	195
Common shares purchased for cancellation	(2,486)	–	(2,588)	–
Issue of preferred shares	–	750	–	1,475
Preferred shares purchased for cancellation	–	(264)	–	(264)
Sales of treasury shares	1,147	1,489	2,359	2,518
Purchases of treasury shares	(1,125)	(1,663)	(2,290)	(2,641)
Dividends paid	(1,307)	(1,235)	(2,616)	(2,430)
Issuance costs	(1)	(9)	(1)	(16)
Dividends/distributions paid to non-controlling interests	–	–	(17)	(46)
Change in short-term borrowings of subsidiaries	(12)	(11)	(17)	(9)
Net cash from (used in) financing activities	(3,746)	(834)	(5,036)	(312)
Effect of exchange rate changes on cash and due from banks	139	(292)	47	(13)
Net change in cash and due from banks	5,155	(2,205)	15,589	2,393
Cash and due from banks at beginning of period (1)	25,363	17,050	14,929	12,452
Cash and due from banks at end of period (1)	\$ 30,518	\$ 14,845	\$ 30,518	\$ 14,845
Cash flows from operating activities include:				
Amount of interest paid	\$ 1,920	\$ 1,639	\$ 3,994	\$ 3,457
Amount of interest received	6,099	5,746	12,142	11,456
Amount of dividend received	355	382	947	805
Amount of income taxes paid	1,045	412	3,047	624

(1) We are required to maintain balances with central banks and other regulatory authorities. The total balances were \$1.8 billion as at April 30, 2017 (January 31, 2017 – \$1.7 billion; October 31, 2016 – \$3.3 billion; April 30, 2016 – \$2.0 billion; January 31, 2016 – \$2.2 billion; October 31, 2015 – \$2.6 billion).

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

Note 1 General information

Our unaudited Interim Condensed Consolidated Financial Statements (Condensed Financial Statements) are presented in compliance with International Accounting Standard (IAS) 34 *Interim Financial Reporting*. The Condensed Financial Statements do not include all the information and disclosures required in the annual financial statements and should be read in conjunction with our audited 2016 Annual Consolidated Financial Statements and the accompanying notes included on pages 116 to 205 in our 2016 Annual Report. Tabular information is stated in millions of Canadian dollars, except per share amounts and percentages. On May 24, 2017, the Board of Directors authorized the Condensed Financial Statements for issue.

Note 2 Summary of significant accounting policies, estimates and judgments

These Condensed Financial Statements have been prepared using the same accounting policies and methods used in the preparation of our audited 2016 Annual Consolidated Financial Statements. Significant accounting policies are described in Note 2 of our audited 2016 Annual Consolidated Financial Statements. Future changes in accounting policies and disclosures that are not yet effective for us are described in Note 2 of our audited 2016 Annual Consolidated Financial Statements and an update is provided in the Accounting and control matters section of Management's Discussion and Analysis.

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. Refer to Note 2 and Note 3 of our audited 2016 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 April 30, 2017						
	Carrying value and fair value			Carrying value		Fair value	
	Financial instruments classified as at FVTPL	Financial instruments designated as at FVTPL	Available-for-sale instruments measured at fair value	Financial instruments measured at amortized cost	Financial instruments measured at amortized cost	Total carrying amount	Total fair value
(Millions of Canadian dollars)							
Financial assets							
Interest-bearing deposits with banks	\$ –	\$ 12,352	\$ –	\$ 13,523	\$ 13,523	\$ 25,875	\$ 25,875
Securities							
Trading	121,904	10,466	–	–	–	132,370	132,370
Available-for-sale (1)	–	–	71,683	15,352	15,471	87,035	87,154
	121,904	10,466	71,683	15,352	15,471	219,405	219,524
Assets purchased under reverse repurchase agreements and securities borrowed	–	136,452	–	80,479	80,244	216,931	216,696
Loans							
Retail	117	–	–	372,810	373,362	372,927	373,479
Wholesale	3,097	1,307	–	154,931	155,214	159,335	159,618
	3,214	1,307	–	527,741	528,576	532,262	533,097
Other							
Derivatives	100,763	–	–	–	–	100,763	100,763
Other assets (2)	–	1,110	–	45,664	45,664	46,774	46,774
Financial liabilities							
Deposits							
Personal	\$ 147	\$ 14,675		\$ 244,497	\$ 244,510	\$ 259,319	\$ 259,332
Business and government (3)	–	85,036		413,195	414,809	498,231	499,845
Bank (4)	–	5,734		22,299	22,312	28,033	28,046
	147	105,445		679,991	681,631	785,583	787,223
Other							
Obligations related to securities sold short	37,331	–		–	–	37,331	37,331
Obligations related to assets sold under repurchase agreements and securities loaned	–	120,243		7,712	7,712	127,955	127,955
Derivatives	99,031	–		–	–	99,031	99,031
Other liabilities (5)	116	14		45,867	45,845	45,997	45,975
Subordinated debentures	–	123		9,523	9,810	9,646	9,933

Note 3 Fair value of financial instruments (continued)

	As at October 31, 2016						
	Carrying value and fair value			Carrying value	Fair value	Total carrying amount	Total fair value
	Financial instruments classified as at FVTPL	Financial instruments designated as at FVTPL	Available-for-sale instruments measured at fair value	Financial instruments measured at amortized cost	Financial instruments measured at amortized cost		
(Millions of Canadian dollars)							
Financial assets							
Interest-bearing deposits with banks	\$ –	\$ 15,967	\$ –	\$ 11,884	\$ 11,884	\$ 27,851	\$ 27,851
Securities							
Trading	141,265	10,027	–	–	–	151,292	151,292
Available-for-sale (1)	–	–	69,922	14,879	15,207	84,801	85,129
	141,265	10,027	69,922	14,879	15,207	236,093	236,421
Assets purchased under reverse repurchase agreements and securities borrowed	–	121,692	–	64,610	64,498	186,302	186,190
Loans							
Retail	71	–	–	368,145	369,012	368,216	369,083
Wholesale	1,437	904	–	151,047	150,720	153,388	153,061
	1,508	904	–	519,192	519,732	521,604	522,144
Other							
Derivatives	118,944	–	–	–	–	118,944	118,944
Other assets (2)	–	894	–	43,981	43,979	44,875	44,873
Financial liabilities							
Deposits							
Personal	\$ 113	\$ 15,142	–	\$ 235,295	\$ 235,490	\$ 250,550	\$ 250,745
Business and government (3)	–	82,871	–	405,136	406,881	488,007	489,752
Bank (4)	–	730	–	18,302	18,312	19,032	19,042
	113	98,743	–	658,733	660,683	757,589	759,539
Other							
Obligations related to securities sold short	50,369	–	–	–	–	50,369	50,369
Obligations related to assets sold under repurchase agreements and securities loaned	–	88,863	–	14,578	14,583	103,441	103,446
Derivatives	116,550	–	–	–	–	116,550	116,550
Other liabilities (5)	282	10	–	43,865	43,838	44,157	44,130
Subordinated debentures	–	131	–	9,631	9,700	9,762	9,831

(1) Available-for-sale (AFS) securities include held-to-maturity securities that are recorded at amortized cost.

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

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

(4) Bank deposits refer to deposits from regulated deposit-taking institutions.

(5) 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

(Millions of Canadian dollars)	As at										
	April 30, 2017						October 31, 2016				
	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
Level 1	Level 2	Level 3				Level 1	Level 2	Level 3			
Financial assets											
Interest-bearing deposits with banks	\$ -	\$ 12,352	\$ -	\$ 12,352	\$ -	\$ 12,352	\$ -	\$ 15,967	\$ -	\$ 15,967	\$ 15,967
Securities											
Trading											
Canadian government debt (1)											
Federal	14,221	9,202	-	23,423		23,423	13,072	10,214	-	23,286	23,286
Provincial and municipal	-	11,363	-	11,363		11,363	-	11,928	-	11,928	11,928
U.S. state, municipal and agencies debt (1)	1,078	35,223	1	36,302		36,302	3,358	37,002	1	40,361	40,361
Other OECD government debt (2)	1,058	7,252	-	8,310		8,310	1,390	5,530	-	6,920	6,920
Mortgage-backed securities (1)	-	1,483	-	1,483		1,483	-	1,457	-	1,457	1,457
Asset-backed securities											
Non-CDO securities (3)	-	573	6	579		579	-	557	4	561	561
Corporate debt and other debt	22	20,896	59	20,977		20,977	25	20,630	62	20,717	20,717
Equities	26,470	3,023	440	29,933		29,933	43,155	2,531	376	46,062	46,062
	42,849	89,015	506	132,370		132,370	61,000	89,849	443	151,292	151,292
Available-for-sale (4)											
Canadian government debt (1)											
Federal	489	476	-	965		965	44	378	-	422	422
Provincial and municipal	-	2,465	-	2,465		2,465	-	2,364	-	2,364	2,364
U.S. state, municipal and agencies debt (1)	8	26,623	699	27,330		27,330	1	24,668	747	25,416	25,416
Other OECD government debt	-	10,604	-	10,604		10,604	3,416	10,484	-	13,900	13,900
Mortgage-backed securities (1)	-	576	-	576		576	-	395	-	395	395
Asset-backed securities											
CDO	-	2,926	-	2,926		2,926	-	1,630	-	1,630	1,630
Non-CDO securities	-	2,852	217	3,069		3,069	-	1,886	217	2,103	2,103
Corporate debt and other debt	-	21,221	927	22,148		22,148	-	21,110	956	22,066	22,066
Equities	354	337	721	1,412		1,412	376	331	756	1,463	1,463
Loan substitute securities	58	25	-	83		83	49	25	-	74	74
	909	68,105	2,564	71,578		71,578	3,886	63,271	2,676	69,833	69,833
Assets purchased under reverse repurchase agreements and securities borrowed	-	136,452	-	136,452		136,452	-	121,692	-	121,692	121,692
Loans	-	4,017	504	4,521		4,521	-	2,083	329	2,412	2,412
Other											
Derivatives											
Interest rate contracts	3	126,974	482	127,459		127,459	3	153,216	555	153,774	153,774
Foreign exchange contracts	-	47,007	88	47,095		47,095	-	56,752	26	56,778	56,778
Credit derivatives	-	83	-	83		83	-	191	-	191	191
Other contracts	3,083	3,788	114	6,985		6,985	2,855	3,613	307	6,775	6,775
Valuation adjustments	-	(968)	(4)	(972)		(972)	-	(1,429)	(3)	(1,432)	(1,432)
Total gross derivatives	3,086	176,884	680	180,650		180,650	2,858	212,343	885	216,086	216,086
Netting adjustments					(79,887)	(79,887)					(97,142)
Total derivatives						100,763					118,944
Other assets	916	194	-	1,110		1,110	762	132	-	894	894
	\$ 47,760	\$ 487,019	\$ 4,254	\$ 539,033	\$ (79,887)	\$ 459,146	\$ 68,506	\$ 505,337	\$ 4,333	\$ 578,176	\$ (97,142) \$ 481,034
Financial Liabilities											
Deposits											
Personal	\$ -	\$ 14,479	\$ 343	\$ 14,822	\$ -	\$ 14,822	\$ -	\$ 14,830	\$ 425	\$ 15,255	\$ 15,255
Business and government	-	85,034	2	85,036		85,036	-	82,869	2	82,871	82,871
Bank	-	5,734	-	5,734		5,734	-	730	-	730	730
Other											
Obligations related to securities sold short	17,989	19,342	-	37,331		37,331	32,672	17,696	1	50,369	50,369
Obligations related to assets sold under repurchase agreements and securities loaned	-	120,243	-	120,243		120,243	-	88,863	-	88,863	88,863
Derivatives											
Interest rate contracts	-	120,050	907	120,957		120,957	-	145,055	1,003	146,058	146,058
Foreign exchange contracts	-	49,553	34	49,587		49,587	-	57,438	41	57,479	57,479
Credit derivatives	-	183	-	183		183	-	263	-	263	263
Other contracts	2,557	5,364	378	8,299		8,299	3,135	5,543	429	9,107	9,107
Valuation adjustments	-	8	10	18		18	-	(133)	7	(126)	(126)
Total gross derivatives	2,557	175,158	1,329	179,044		179,044	3,135	208,166	1,480	212,781	212,781
Netting adjustments					(80,013)	(80,013)					(96,231)
Total derivatives						99,031					116,550
Other liabilities	88	16	26	130		130	124	80	88	292	292
Subordinated debentures	-	123	-	123		123	-	131	-	131	131
	\$ 20,634	\$ 420,129	\$ 1,700	\$ 442,463	\$ (80,013)	\$ 362,450	\$ 35,931	\$ 413,365	\$ 1,996	\$ 451,292	\$ (96,231) \$ 355,061

(1) As at April 30, 2017, residential and commercial mortgage-backed securities (MBS) included in all fair value levels of trading securities were \$17,967 million and \$10 million (October 31, 2016 – \$14,987 million and \$10 million), respectively, and in all fair value levels of AFS securities were \$13,098 million and \$501 million (October 31, 2016 – \$13,212 million and \$346 million), respectively.

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

(3) CDO stands for collateralized debt obligations.

(4) Excludes \$105 million of available-for-sale securities (October 31, 2016 – \$89 million) that are carried at cost.

Note 3 Fair value of financial instruments (continued)**Quantitative information about fair value measurements using significant unobservable inputs (Level 3 Instruments)**

During the six months ended April 30, 2017, there were no significant changes made to the valuation techniques, sensitivities to, and interrelationships between unobservable inputs used in the determination of fair value of Level 3 financial instruments. During the three months and six months ended April 30, 2017, changes in the ranges and weighted averages of unobservable inputs did not have a significant impact on the unrealized gains (losses) included in earnings for Level 3 financial instruments. Refer to Note 3 of our audited 2016 Annual Consolidated Financial Statements for quantitative information about fair value measurements using significant unobservable inputs.

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

The following tables present the changes in fair value measurements on a recurring basis for instruments included in Level 3 of the fair value hierarchy.

	For the three months ended April 30, 2017								Changes in unrealized gains (losses) included in earnings for assets and liabilities for positions still held
	Fair value at beginning of period	Total realized/unrealized gains (losses) included in earnings	Total unrealized gains (losses) included in other comprehensive income (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	
(Millions of Canadian dollars)									
Assets									
Securities									
Trading									
Canadian government debt									
Provincial and municipal	\$ –	\$ –	\$ –	\$ –	\$ –	\$ –	\$ –	\$ –	\$ –
U.S. state, municipal and agencies debt	1	–	–	–	–	–	–	1	–
Mortgage-backed securities	–	–	–	–	–	–	–	–	–
Asset-backed securities									
CDO	–	–	–	–	–	–	–	–	–
Non-CDO securities	4	–	–	6	(4)	–	–	6	–
Corporate debt and other debt	71	(1)	1	1	(11)	–	(2)	59	–
Equities	361	(24)	17	100	(17)	3	–	440	(19)
	437	(25)	18	107	(32)	3	(2)	506	(19)
Available-for-sale									
U.S. state, municipal and agencies debt	719	(2)	26	–	(44)	–	–	699	n.a.
Asset-backed securities									
Non-CDO securities	202	–	9	–	6	–	–	217	n.a.
Corporate debt and other debt	894	(1)	38	13	(3)	–	(14)	927	n.a.
Equities	716	10	25	14	(44)	–	–	721	n.a.
	2,531	7	98	27	(85)	–	(14)	2,564	n.a.
Loans	442	8	7	50	(3)	–	–	504	8
Other									
Net derivative balances (3)									
Interest rate contracts	(407)	(18)	–	–	–	–	–	(425)	(18)
Foreign exchange contracts	16	39	3	–	1	(4)	(1)	54	35
Credit derivatives	–	–	–	–	–	–	–	–	–
Other contracts	(240)	16	(11)	(15)	(12)	(26)	24	(264)	22
Valuation adjustments	(11)	–	–	–	(3)	–	–	(14)	–
Other assets	–	–	–	–	–	–	–	–	–
	\$ 2,768	\$ 27	\$ 115	\$ 169	\$ (134)	\$ (27)	\$ 7	\$ 2,925	\$ 28
Liabilities									
Deposits									
Personal	\$ (364)	\$ (9)	\$ (7)	\$ (64)	\$ 20	\$ (54)	\$ 135	\$ (343)	\$ (4)
Business and government	(2)	–	–	–	–	–	–	(2)	–
Other									
Obligations related to securities sold short	–	–	–	–	–	–	–	–	–
Other liabilities	(86)	(1)	(2)	–	63	–	–	(26)	–
	\$ (452)	\$ (10)	\$ (9)	\$ (64)	\$ 83	\$ (54)	\$ 135	\$ (371)	\$ (4)

For the three months ended April 30, 2016

(Millions of Canadian dollars)	Fair value at beginning of period	Total realized/unrealized gains (losses) included in earnings	Total unrealized gains (losses) included in other comprehensive income (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									
Canadian government debt									
Provincial and municipal	\$ 5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (5)	\$ -	\$ -
U.S. state, municipal and agencies debt	11	-	(1)	8	(14)	-	-	4	-
Mortgage-backed securities	24	(1)	(1)	-	(22)	-	-	-	-
Asset-backed securities									
CDO	1	-	-	-	-	-	(1)	-	-
Non-CDO securities	20	(2)	(2)	-	(7)	-	-	9	(1)
Corporate debt and other debt	297	(1)	(3)	69	(172)	19	(64)	145	-
Equities	378	(35)	(38)	89	(33)	7	(1)	367	(35)
	736	(39)	(45)	166	(248)	26	(71)	525	(36)
Available-for-sale									
U.S. state, municipal and agencies debt	831	-	(61)	-	(57)	-	-	713	n.a.
Asset-backed securities									
Non-CDO securities	215	-	(9)	-	(15)	-	-	191	n.a.
Corporate debt and other debt	1,942	-	(190)	622	(705)	8	(13)	1,664	n.a.
Equities	997	(2)	(79)	7	(30)	-	-	893	n.a.
	3,985	(2)	(339)	629	(807)	8	(13)	3,461	n.a.
Loans	451	9	(53)	-	(9)	-	(4)	394	12
Other									
Net derivative balances (3)									
Interest rate contracts	(471)	15	-	3	1	30	-	(422)	14
Foreign exchange contracts	55	(20)	(4)	(19)	(2)	-	(4)	6	(20)
Credit derivatives	(2)	2	-	-	-	-	-	-	(1)
Other contracts	(334)	(19)	36	3	59	(50)	22	(283)	70
Valuation adjustments	(46)	-	2	-	4	-	-	(40)	-
Other assets	2	-	-	-	-	-	-	2	-
	\$ 4,376	\$ (54)	\$ (403)	\$ 782	\$ (1,002)	\$ 14	\$ (70)	\$ 3,643	\$ 39
Liabilities									
Deposits									
Personal	\$ (401)	\$ (31)	\$ 16	\$ (57)	\$ 11	\$ (183)	\$ 143	\$ (502)	\$ (40)
Business and government	-	-	-	-	(2)	-	-	(2)	1
Other									
Obligations related to securities sold short	-	-	-	-	-	-	-	-	-
Other liabilities	(162)	(11)	17	-	12	-	-	(144)	(7)
	\$ (563)	\$ (42)	\$ 33	\$ (57)	\$ 21	\$ (183)	\$ 143	\$ (648)	\$ (46)

Note 3 Fair value of financial instruments (continued)

	For the six months ended April 30, 2017								
	Fair value at beginning of period	Total realized/unrealized gains (losses) included in earnings	Total unrealized gains (losses) included in other comprehensive income (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
(Millions of Canadian dollars)									
Assets									
Securities									
Trading									
Canadian government debt									
Provincial and municipal	\$ –	\$ –	\$ –	\$ –	\$ –	\$ –	\$ –	\$ –	\$ –
U.S. state, municipal and agencies debt	1	–	–	–	–	–	–	1	–
Mortgage-backed securities	–	–	–	–	–	–	–	–	–
Asset-backed securities									
CDO	–	–	–	–	–	–	–	–	–
Non-CDO securities	4	–	–	6	(4)	–	–	6	–
Corporate debt and other debt	62	(2)	1	20	(30)	20	(12)	59	(1)
Equities	376	(42)	6	138	(52)	15	(1)	440	(37)
	443	(44)	7	164	(86)	35	(13)	506	(38)
Available-for-sale									
U.S. state, municipal and agencies debt	747	(5)	16	–	(59)	–	–	699	n.a.
Asset-backed securities									
Non-CDO securities	217	–	15	–	(15)	–	–	217	n.a.
Corporate debt and other debt	956	(1)	9	16	(33)	–	(20)	927	n.a.
Equities	756	22	13	23	(93)	–	–	721	n.a.
	2,676	16	53	39	(200)	–	(20)	2,564	n.a.
Loans	329	7	3	169	(4)	–	–	504	8
Other									
Net derivative balances (3)									
Interest rate contracts	(448)	(9)	–	26	–	3	3	(425)	(5)
Foreign exchange contracts	(15)	70	3	–	–	(2)	(2)	54	47
Credit derivatives	–	–	–	–	–	–	–	–	–
Other contracts	(122)	12	(7)	(33)	(4)	(48)	(62)	(264)	2
Valuation adjustments	(10)	–	–	–	(4)	–	–	(14)	–
Other assets	–	–	–	–	–	–	–	–	–
	\$ 2,853	\$ 52	\$ 59	\$ 365	\$ (298)	\$ (12)	\$ (94)	\$ 2,925	\$ 14
Liabilities									
Deposits									
Personal	\$ (425)	\$ (22)	\$ –	\$ (125)	\$ 49	\$ (122)	\$ 302	\$ (343)	\$ (6)
Business and government	(2)	–	–	–	–	–	–	(2)	–
Other									
Obligations related to securities sold short	(1)	–	–	–	1	–	–	–	–
Other liabilities	(88)	(2)	1	–	63	–	–	(26)	–
	\$ (516)	\$ (24)	\$ 1	\$ (125)	\$ 113	\$ (122)	\$ 302	\$ (371)	\$ (6)

For the six months ended April 30, 2016									
(Millions of Canadian dollars)	Fair value at beginning of period	Total realized/unrealized gains (losses) included in earnings	Total unrealized gains (losses) included in other comprehensive income (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									
Canadian government debt									
Provincial and municipal	\$ 5	\$ –	\$ –	\$ –	\$ –	\$ –	\$ (5)	\$ –	\$ –
U.S. state, municipal and agencies debt	16	–	–	8	(20)	–	–	4	–
Mortgage-backed securities	15	(1)	–	8	(22)	–	–	–	–
Asset-backed securities									
CDO	5	–	–	–	(5)	1	(1)	–	–
Non-CDO securities	23	(4)	–	18	(28)	–	–	9	–
Corporate debt and other debt	191	(2)	4	101	(235)	159	(73)	145	–
Equities	123	(40)	(18)	335	(42)	10	(1)	367	(42)
	378	(47)	(14)	470	(352)	170	(80)	525	(42)
Available-for-sale									
U.S. state, municipal and agencies debt	797	–	(22)	93	(155)	–	–	713	n.a.
Asset-backed securities									
Non-CDO securities	197	–	(3)	7	(10)	–	–	191	n.a.
Corporate debt and other debt	1,757	–	(76)	1,394	(1,417)	21	(15)	1,664	n.a.
Equities	987	29	(63)	49	(109)	–	–	893	n.a.
	3,738	29	(164)	1,543	(1,691)	21	(15)	3,461	n.a.
Loans	472	17	(22)	–	(69)	–	(4)	394	22
Other									
Net derivative balances (3)									
Interest rate contracts	(446)	(13)	–	23	(14)	30	(2)	(422)	(15)
Foreign exchange contracts	58	(19)	(4)	(19)	(2)	1	(9)	6	(19)
Credit derivatives	(1)	1	–	–	–	–	–	–	(1)
Other contracts	(313)	(109)	14	(37)	181	(65)	46	(283)	45
Valuation adjustments	(47)	–	1	–	6	–	–	(40)	–
Other assets	–	–	–	2	–	–	–	2	–
	\$ 3,839	\$ (141)	\$ (189)	\$ 1,982	\$ (1,941)	\$ 157	\$ (64)	\$ 3,643	\$ (10)
Liabilities									
Deposits									
Personal	\$ (389)	\$ 6	\$ 5	\$ (139)	\$ 22	\$ (291)	\$ 284	\$ (502)	\$ (4)
Business and government	(8)	–	–	–	6	–	–	(2)	1
Other									
Obligations related to securities sold short	–	–	–	–	–	–	–	–	–
Other liabilities	(47)	(35)	7	(92)	23	–	–	(144)	(30)
	\$ (444)	\$ (29)	\$ 12	\$ (231)	\$ 51	\$ (291)	\$ 284	\$ (648)	\$ (33)

(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 losses on AFS securities recognized in OCI were \$1 million for the three months ended April 30, 2017 (April 30, 2016 – gains or losses of \$nil) and gains of \$20 million for the six months ended April 30, 2017 (April 30, 2016 – losses of \$41 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 April 30, 2017 included derivative assets of \$680 million (April 30, 2016 – \$957 million) and derivative liabilities of \$1,329 million (April 30, 2016 – \$1,696 million).

n.a. not applicable

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

Transfers between Level 1 and Level 2 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 April 30, 2017, 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 \$47 million and \$405 million, respectively.

During the three months ended April 30, 2017, transfers out of Level 2 to Level 1 included \$339 million of Trading U.S. state, municipal and agencies debt and \$11 million of Obligations related to securities sold short.

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.

Note 3 Fair value of financial instruments (continued)

For the three months ended April 30, 2017, transfers of equity linked – structured notes were due to changes in the significance of unobservable inputs to their fair value.

During the three months ended April 30, 2017, significant transfers out of Level 3 to Level 2 included \$135 million of equity-linked structured notes in Personal Deposits.

Positive and negative fair value movements of Level 3 financial instruments from using reasonably possible alternative assumptions

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.

The following table summarizes the impacts to fair values of Level 3 financial instruments using reasonably possible alternative assumptions. This sensitivity disclosure is intended to illustrate the potential impact of the relative uncertainty in the fair value of Level 3 financial instruments. In reporting the sensitivities below, we offset balances in instances where: (i) the move in valuation factor caused an offsetting positive and negative fair value movement, (ii) both offsetting instruments are in Level 3, and (iii) exposures are managed and reported on a net basis. With respect to overall sensitivity, it is unlikely in practice that all reasonably possible alternative assumptions would simultaneously be realized.

(Millions of Canadian dollars)	As at					
	April 30, 2017			October 31, 2016		
	Level 3 fair value	Positive fair value movement from using reasonably possible alternatives	Negative fair value movement from using reasonably possible alternatives	Level 3 fair value	Positive fair value movement from using reasonably possible alternatives	Negative fair value movement from using reasonably possible alternatives
Securities						
Trading						
U.S. state, municipal and agencies debt	\$ 1	\$ –	\$ –	\$ 1	\$ –	\$ –
Asset-backed securities	6	–	–	4	–	–
Corporate debt and other debt	59	1	–	62	1	(1)
Equities	440	–	(1)	376	–	–
Available-for-sale						
U.S. state, municipal and agencies debt	699	11	(25)	747	14	(31)
Asset-backed securities	217	15	(21)	217	13	(19)
Corporate debt and other debt	927	7	(7)	956	8	(8)
Equities	721	73	(14)	756	74	(13)
Loans	504	8	(10)	329	9	(10)
Derivatives	680	17	(16)	885	17	(16)
	\$ 4,254	\$ 132	\$ (94)	\$ 4,333	\$ 136	\$ (98)
Deposits	\$ (345)	\$ 7	\$ (7)	\$ (427)	\$ 13	\$ (13)
Derivatives	(1,329)	31	(47)	(1,480)	33	(53)
Other						
Securities sold short and other liabilities	(26)	–	–	(89)	–	–
	\$ (1,700)	\$ 38	\$ (54)	\$ (1,996)	\$ 46	\$ (66)

Note 4 Securities

Unrealized gains and losses on available-for-sale securities ^{(1) (2)}

(Millions of Canadian dollars)	As at							
	April 30, 2017				October 31, 2016			
	Cost/ Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	Cost/ Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Canadian government debt								
Federal	\$ 959	\$ 7	\$ (1)	\$ 965	\$ 418	\$ 4	\$ –	\$ 422
Provincial and municipal	2,454	15	(4)	2,465	2,344	22	(2)	2,364
U.S. state, municipal and agencies debt ⁽³⁾	27,471	72	(213)	27,330	25,489	57	(130)	25,416
Other OECD government debt	10,580	34	(10)	10,604	13,875	35	(10)	13,900
Mortgage-backed securities	572	5	(1)	576	392	5	(2)	395
Asset-backed securities								
CDO	2,922	5	(1)	2,926	1,628	2	–	1,630
Non-CDO securities	3,103	8	(42)	3,069	2,158	5	(60)	2,103
Corporate debt and other debt	22,084	104	(40)	22,148	22,015	89	(38)	22,066
Equities	1,267	256	(6)	1,517	1,291	273	(12)	1,552
Loan substitute securities	70	13	–	83	70	4	–	74
	\$ 71,482	\$ 519	\$ (318)	\$ 71,683	\$ 69,680	\$ 496	\$ (254)	\$ 69,922

(1) Excludes \$15,352 million of held-to-maturity securities as at April 30, 2017 (October 31, 2016 – \$14,879 million) that are carried at amortized cost.

(2) The majority of the MBS are residential. Cost/Amortized cost, gross unrealized gains, gross unrealized losses and fair value related to commercial MBS are \$500 million, \$1 million, \$nil and \$501 million, respectively as at April 30, 2017 (October 31, 2016 – \$346 million, \$1 million, \$1 million and \$346 million).

(3) Includes securities issued by U.S. non-agencies backed by government insured assets, MBS and asset-backed securities issued by U.S. government agencies.

AFS securities are assessed for objective evidence of impairment at each reporting date and more frequently when conditions warrant. Depending on the nature of the securities under review, we apply specific methodologies to assess whether the cost/amortized cost of the security would be recovered. As at April 30, 2017, our gross unrealized losses on AFS securities were \$318 million (October 31, 2016 – \$254 million). We believe that there is no objective evidence of impairment on our AFS securities that are in an unrealized loss position as at April 30, 2017.

Net gains and losses on available-for-sale securities ⁽¹⁾

(Millions of Canadian dollars)	For the three months ended		For the six months ended	
	April 30 2017	April 30 2016	April 30 2017	April 30 2016
Realized gains	\$ 75	\$ 30	\$ 123	\$ 103
Realized losses	(7)	(1)	(11)	(2)
Impairment losses	(14)	(14)	(31)	(34)
	\$ 54	\$ 15	\$ 81	\$ 67

(1) The following related to our insurance operations are excluded from Net gains on AFS securities and included in Insurance premiums, investment and fee income in the Consolidated Statements of Income for the three months ended April 30, 2017: Realized gains of \$9 million (April 30, 2016 – \$3 million) and \$nil in impairment losses (April 30, 2016 – \$nil); for the six months ended April 30, 2017: Realized gains of \$11 million (April 30, 2016 – \$6 million) and \$nil in impairment losses (April 30, 2016 – \$4 million). There were no realized losses for the three months and six months ended April 30, 2017 and April 30, 2016.

During the three months ended April 30, 2017, \$54 million of net gains were recognized in Non-interest income as compared to \$15 million for the three months ended April 30, 2016. The current quarter reflects net realized gains of \$68 million mainly comprised of distributions from, and gains on sales of, certain Equities and Other OECD government debt. Also included in the net gains are \$14 million of impairment losses primarily on certain Equities.

During the six months ended April 30, 2017, \$81 million of net gains were recognized in Non-interest income as compared to \$67 million for the six months ended April 30, 2016. The current period reflects net realized gains of \$112 million mainly comprised of distributions from, and gains on sales of, certain Equities and Other OECD government debt. Also included in the net gains are \$31 million of impairment losses primarily on certain Equities and U.S. state, municipal and agencies debt.

Held-to-maturity securities

Held-to-maturity securities measured at amortized cost are subject to periodic impairment review and are classified as impaired when, in management's opinion, there is no longer reasonable assurance of the timely collection of the full amount of principal and interest. The impairment review of held-to-maturity securities is primarily based on the impairment model for loans. We believe that there is no objective evidence of impairment on our held-to-maturity securities as at April 30, 2017.

Note 5 Allowance for credit losses and impaired loans

Allowance for credit losses

(Millions of Canadian dollars)	For the three months ended April 30, 2017						
	Balance at beginning of period	Provision for credit losses	Write-offs	Recoveries	Unwind of discount	Exchange rate changes/ other	Balance at end of period
Retail							
Residential mortgages	\$ 258	\$ 20	\$ (11)	\$ 1	\$ (6)	\$ 11	\$ 273
Personal	526	97	(136)	27	(2)	6	518
Credit cards	387	110	(141)	30	–	–	386
Small business	65	8	(11)	2	(1)	–	63
	1,236	235	(299)	60	(9)	17	1,240
Wholesale							
Business	1,001	66	(55)	7	(19)	15	1,015
Bank	–	–	–	–	–	–	–
	1,001	66	(55)	7	(19)	15	1,015
Acquired credit-impaired loans	2	1	–	–	–	–	3
Total allowance for loan losses	2,239	302	(354)	67	(28)	32	2,258
Allowance for off-balance sheet and other items (1)	91	–	–	–	–	–	91
Total allowance for credit losses	\$ 2,330	\$ 302	\$ (354)	\$ 67	\$ (28)	\$ 32	\$ 2,349
Individually assessed	\$ 377	\$ 28	\$ (33)	\$ 2	\$ (15)	\$ 18	\$ 377
Collectively assessed	1,953	274	(321)	65	(13)	14	1,972
Total allowance for credit losses	\$ 2,330	\$ 302	\$ (354)	\$ 67	\$ (28)	\$ 32	\$ 2,349

(Millions of Canadian dollars)	For the three months ended April 30, 2016						
	Balance at beginning of period	Provision for credit losses	Write-offs	Recoveries	Unwind of discount	Exchange rate changes/ other	Balance at end of period
Retail							
Residential mortgages	\$ 266	\$ 9	\$ (11)	\$ 3	\$ (6)	\$ (19)	\$ 242
Personal	548	112	(144)	28	(3)	(7)	534
Credit cards	386	116	(146)	31	–	(1)	386
Small business	64	9	(8)	2	–	–	67
	1,264	246	(309)	64	(9)	(27)	1,229
Wholesale							
Business	901	212	(36)	13	(11)	(43)	1,036
Bank	2	–	–	–	–	–	2
	903	212	(36)	13	(11)	(43)	1,038
Acquired credit-impaired loans	2	2	–	–	–	–	4
Total allowance for loan losses	2,169	460	(345)	77	(20)	(70)	2,271
Allowance for off-balance sheet and other items (1)	91	–	–	–	–	–	91
Total allowance for credit losses	\$ 2,260	\$ 460	\$ (345)	\$ 77	\$ (20)	\$ (70)	\$ 2,362
Individually assessed	\$ 340	\$ 136	\$ (14)	\$ 9	\$ (7)	\$ (34)	\$ 430
Collectively assessed	1,920	324	(331)	68	(13)	(36)	1,932
Total allowance for credit losses	\$ 2,260	\$ 460	\$ (345)	\$ 77	\$ (20)	\$ (70)	\$ 2,362

(Millions of Canadian dollars)	For the six months ended April 30, 2017						
	Balance at beginning of period	Provision for credit losses	Write-offs	Recoveries	Unwind of discount	Exchange rate changes/ other	Balance at end of period
Retail							
Residential mortgages	\$ 273	\$ 26	\$ (24)	\$ 3	\$ (11)	\$ 6	\$ 273
Personal	529	206	(274)	56	(5)	6	518
Credit cards	386	220	(282)	62	–	–	386
Small business	65	15	(20)	5	(2)	–	63
	1,253	467	(600)	126	(18)	12	1,240
Wholesale							
Business	979	128	(90)	39	(40)	(1)	1,015
Bank	–	–	–	–	–	–	–
	979	128	(90)	39	(40)	(1)	1,015
Acquired credit-impaired loans	3	1	–	–	–	(1)	3
Total allowance for loan losses	2,235	596	(690)	165	(58)	10	2,258
Allowance for off-balance sheet and other items (1)	91	–	–	–	–	–	91
Total allowance for credit losses	\$ 2,326	\$ 596	\$ (690)	\$ 165	\$ (58)	\$ 10	\$ 2,349
Individually assessed	\$ 365	\$ 54	\$ (43)	\$ 28	\$ (32)	\$ 5	\$ 377
Collectively assessed	1,961	542	(647)	137	(26)	5	1,972
Total allowance for credit losses	\$ 2,326	\$ 596	\$ (690)	\$ 165	\$ (58)	\$ 10	\$ 2,349

(Millions of Canadian dollars)	For the six months ended April 30, 2016						
	Balance at beginning of period	Provision for credit losses	Write-offs	Recoveries	Unwind of discount	Exchange rate changes/ other	Balance at end of period
Retail							
Residential mortgages	\$ 242	\$ 37	\$ (21)	\$ 3	\$ (12)	\$ (7)	\$ 242
Personal	530	230	(274)	54	(6)	–	534
Credit cards	386	220	(278)	59	–	(1)	386
Small business	64	17	(18)	5	(1)	–	67
	1,222	504	(591)	121	(19)	(8)	1,229
Wholesale							
Business	805	362	(101)	19	(21)	(28)	1,036
Bank	2	–	–	–	–	–	2
	807	362	(101)	19	(21)	(28)	1,038
Acquired credit-impaired loans	–	4	–	–	–	–	4
Total allowance for loan losses	2,029	870	(692)	140	(40)	(36)	2,271
Allowance for off-balance sheet and other items (1)	91	–	–	–	–	–	91
Total allowance for credit losses	\$ 2,120	\$ 870	\$ (692)	\$ 140	\$ (40)	\$ (36)	\$ 2,362
Individually assessed	\$ 252	\$ 258	\$ (57)	\$ 13	\$ (16)	\$ (20)	\$ 430
Collectively assessed	1,868	612	(635)	127	(24)	(16)	1,932
Total allowance for credit losses	\$ 2,120	\$ 870	\$ (692)	\$ 140	\$ (40)	\$ (36)	\$ 2,362

(1) The allowance for off-balance sheet and other items is reported separately in Other liabilities – Provisions.

Loans past due but not impaired

(Millions of Canadian dollars)	As at							
	April 30, 2017				October 31, 2016			
	1 to 29 days	30 to 89 days	90 days and greater	Total	1 to 29 days	30 to 89 days	90 days and greater	Total
Retail	\$ 2,918	\$ 1,177	\$ 344	\$ 4,439	\$ 3,450	\$ 1,296	\$ 337	\$ 5,083
Wholesale	1,508	307	1	1,816	848	372	–	1,220
	\$ 4,426	\$ 1,484	\$ 345	\$ 6,255	\$ 4,298	\$ 1,668	\$ 337	\$ 6,303

Gross carrying value of loans individually determined to be impaired (1)

(Millions of Canadian dollars)	As at	
	April 30 2017	October 31 2016
Retail (2)	\$ 16	\$ 16
Wholesale (2)		
Business	1,598	2,130
Bank	–	2
Acquired credit-impaired loans	331	418
Total	\$ 1,945	\$ 2,566

(1) Average balance of gross individually assessed impaired loans for the three months ended April 30, 2017 was \$2,223 million (October 31, 2016 – \$2,487 million).

(2) Excludes acquired credit-impaired (ACI) loans.

Acquired Credit-Impaired Loans

ACI loans resulting from the acquisition of City National include Retail, Wholesale and Federal Deposit Insurance Corporation (FDIC) covered loans. The following table provides further details of our ACI loans.

(Millions of Canadian dollars)	As at	
	April 30 2017	October 31 2016
City National		
Unpaid principal balance (1)	\$ 319	\$ 409
Credit related fair value adjustments	(8)	(12)
Interest rate and other related premium/(discount)	20	21
Carrying value	331	418
Individually assessed allowance	(3)	(3)
Carrying value net of related allowance	\$ 328	\$ 415

(1) Represents contractual amount owed net of write-offs since the acquisition of the loan.

FDIC Covered Loans

FDIC covered loans are loans that, as at the reporting date, are subject to loss-share agreements with the FDIC under which the FDIC reimburses us for 80% of the net losses incurred on the underlying loan portfolio. As at April 30, 2017, the balance of FDIC covered loans recorded in Loans on the Consolidated Balance Sheet was \$6 million (October 31, 2016 – \$374 million). The decrease in FDIC covered loans during the period was primarily due to the expiry of certain loss-share agreements and loan repayments. As at April 30, 2017, the balances for indemnification assets and clawback liabilities were \$nil and \$27 million (October 31, 2016 – \$2 million and \$26 million), respectively.

Note 6 Joint ventures

On December 21, 2016, Moneris Solutions Corporation (Moneris) completed the sale of its U.S. operations to Vantiv, Inc. for \$576 million (US\$430 million). We have a 50% interest in Moneris and account for our interest as a joint venture. Our share of the gain recognized by Moneris was \$212 million (before and after tax), and was presented in Non-interest income – Share of profit in joint ventures and associates.

Note 7 Deposits

The following table details our deposit liabilities.

(Millions of Canadian dollars)	As at							
	April 30, 2017				October 31, 2016			
	Demand (1)	Notice (2)	Term (3)	Total	Demand (1)	Notice (2)	Term (3)	Total
Personal	\$ 132,889	\$ 49,122	\$ 77,308	\$ 259,319	\$ 128,206	\$ 46,096	\$ 76,248	\$ 250,550
Business and government	227,505	8,885	261,841	498,231	221,506	10,740	255,761	488,007
Bank	9,112	3	18,918	28,033	8,533	49	10,450	19,032
	\$ 369,506	\$ 58,010	\$ 358,067	\$ 785,583	\$ 358,245	\$ 56,885	\$ 342,459	\$ 757,589
Non-interest-bearing (4)								
Canada	\$ 84,461	\$ 5,033	\$ –	\$ 89,494	\$ 78,692	\$ 4,686	\$ –	\$ 83,378
United States	32,877	58	–	32,935	34,172	93	–	34,265
Europe (5)	451	–	–	451	1,009	–	–	1,009
Other International	6,576	28	–	6,604	5,753	4	–	5,757
Interest-bearing (4)								
Canada	206,769	15,235	282,702	504,706	200,911	14,979	272,999	488,889
United States	977	32,671	45,254	78,902	999	32,388	41,427	74,814
Europe (5)	33,678	1,423	19,676	54,777	32,864	1,108	17,966	51,938
Other International	3,717	3,562	10,435	17,714	3,845	3,627	10,067	17,539
	\$ 369,506	\$ 58,010	\$ 358,067	\$ 785,583	\$ 358,245	\$ 56,885	\$ 342,459	\$ 757,589

(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 April 30, 2017, deposits denominated in U.S. dollars, British pounds, Euro and other foreign currencies were \$277 billion, \$17 billion, \$38 billion and \$31 billion, respectively (October 31, 2016 – \$264 billion, \$16 billion, \$37 billion and \$29 billion).

(5) Europe includes the United Kingdom, Luxembourg and the Channel Islands.

The following table presents the contractual maturities of our term deposit liabilities.

(Millions of Canadian dollars)	As at	
	April 30 2017	October 31 2016
Within 1 year:		
less than 3 months	\$ 69,287	\$ 72,346
3 to 6 months	40,451	40,487
6 to 12 months	64,289	51,608
1 to 2 years	63,135	50,676
2 to 3 years	37,451	39,499
3 to 4 years	36,545	31,482
4 to 5 years	22,351	29,854
Over 5 years	24,558	26,507
	\$ 358,067	\$ 342,459
Aggregate amount of term deposits in denominations of one hundred thousand dollars or more	\$ 326,000	\$ 309,000

Note 8 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 composition of our remeasurements recorded in other comprehensive income.

Pension and other post-employment benefit expense

(Millions of Canadian dollars)	For the three months ended			
	Pension plans		Other post-employment benefit plans	
	April 30 2017	April 30 2016	April 30 2017	April 30 2016
Current service costs	\$ 95	\$ 78	\$ 10	\$ 9
Past service costs	–	–	–	–
Net interest expense (income)	10	–	17	18
Remeasurements of other long term benefits	–	–	2	4
Administrative expense	4	3	–	–
Defined benefit pension expense	\$ 109	\$ 81	\$ 29	\$ 31
Defined contribution pension expense	37	35	–	–
	\$ 146	\$ 116	\$ 29	\$ 31

(Millions of Canadian dollars)	For the six months ended			
	Pension plans		Other post-employment benefit plans	
	April 30 2017	April 30 2016	April 30 2017	April 30 2016
Current service costs	\$ 190	\$ 156	\$ 20	\$ 18
Past service costs	(2)	–	–	–
Net interest expense (income)	21	(1)	34	36
Remeasurements of other long term benefits	–	–	(2)	8
Administrative expense	7	6	–	–
Defined benefit pension expense	\$ 216	\$ 161	\$ 52	\$ 62
Defined contribution pension expense	84	87	–	–
	\$ 300	\$ 248	\$ 52	\$ 62

Remeasurements of employee benefit plans ⁽¹⁾

(Millions of Canadian dollars)	For the three months ended			
	Defined benefit pension plans		Other post-employment benefit plans	
	April 30 2017	April 30 2016	April 30 2017	April 30 2016
Actuarial (gains) losses:				
Changes in financial assumptions	\$ 798	\$ 383	\$ 115	\$ 24
Experience adjustments	–	–	(4)	(5)
Return on plan assets (excluding interest based on discount rate)	(534)	(96)	–	(1)
	\$ 264	\$ 287	\$ 111	\$ 18

(Millions of Canadian dollars)	For the six months ended			
	Defined benefit pension plans		Other post-employment benefit plans	
	April 30 2017	April 30 2016	April 30 2017	April 30 2016
Actuarial (gains) losses:				
Changes in financial assumptions	\$ 33	\$ 741	\$ 23	\$ 85
Experience adjustments	–	–	(6)	(6)
Return on plan assets (excluding interest based on discount rate)	(478)	92	–	(1)
	\$ (445)	\$ 833	\$ 17	\$ 78

(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 9 Income taxes*Tax examinations and assessments*

During the first quarter, the Canada Revenue Agency (CRA) reassessed Royal Bank of Canada approximately \$209 million of additional income tax and interest by denying the tax deductibility of certain dividends received from Canadian corporations in 2011 on the basis that they were part of a “dividend rental arrangement”. It is possible that the CRA will reassess us for significant additional income tax for subsequent years on the same basis. We are confident that our tax filing position was appropriate and intend to defend ourselves vigorously. Amendments were introduced in the 2015 Canadian Federal Budget to disallow deduction of these dividends from similar arrangements with prospective application effective May 1, 2017.

Note 10 Significant capital and funding transactions**Common shares issued** ⁽¹⁾

	For the three months ended			
	April 30, 2017		April 30, 2016	
	Number of shares (thousands)	Amount	Number of shares (thousands)	Amount
(Millions of Canadian dollars, except number of shares)				
Issued in connection with share-based compensation plans ⁽²⁾	739	\$ 50	1,588	\$ 109
Issued in connection with the acquisition of City National	–	–	–	–
Purchased for cancellation ⁽³⁾	(18,988)	(231)	–	–
	(18,249)	\$ (181)	1,588	\$ 109
	For the six months ended			
	April 30, 2017		April 30, 2016	
	Number of shares (thousands)	Amount	Number of shares (thousands)	Amount
(Millions of Canadian dollars, except number of shares)				
Issued in connection with share-based compensation plans ⁽²⁾	2,218	\$ 146	3,177	\$ 195
Issued in connection with the acquisition of City National	–	–	41,619	3,115
Purchased for cancellation ⁽³⁾	(30,321)	(368)	–	–
	(28,103)	\$ (222)	44,796	\$ 3,310

- (1) The requirements of our dividend reinvestment plan (DRIP) are satisfied through either open market share purchases or shares issued from treasury. During the three and six months ended April 30, 2017 and April 30, 2016, our DRIP's requirements were satisfied through open market share purchases.
- (2) Amounts include cash received for stock options exercised during the period and fair value adjustments to stock options.
- (3) During the three months ended April 30, 2017, we purchased for cancellation 19 million common shares at a total fair value of \$1,637 million (average cost of \$86.20 per share), with a book value of \$231 million (book value of \$12.14 per share). We also purchased for cancellation 10.2 million common shares for which we reduced our common shares outstanding in the first quarter of 2017 to reflect our repurchase obligation under a specific share repurchase program as at January 31, 2017. During the six months ended April 30, 2017, we purchased for cancellation 30.3 million common shares at a total fair value of \$2,588 million (average cost of \$85.34 per share), with a book value of \$368 million (book value of \$12.14 per share). For the three and six month periods ended April 30, 2016, we did not purchase any common shares for cancellation.

Note 11 Earnings per share

	For the three months ended		For the six months ended	
	April 30 2017	April 30 2016	April 30 2017	April 30 2016
(Millions of Canadian dollars, except share and per share amounts)				
Basic earnings per share				
Net Income	\$ 2,809	\$ 2,573	\$ 5,836	\$ 5,020
Preferred share dividends	(77)	(74)	(152)	(134)
Net income attributable to non-controlling interest	(8)	(13)	(20)	(34)
Net income available to common shareholders	2,724	2,486	5,664	4,852
Weighted average number of common shares (in thousands)	1,468,015	1,487,346	1,476,273	1,486,871
Basic earnings per share (in dollars)	\$ 1.86	\$ 1.67	\$ 3.84	\$ 3.26
Diluted earnings per share				
Net income available to common shareholders	\$ 2,724	\$ 2,486	\$ 5,664	\$ 4,852
Dilutive impact of exchangeable shares	3	3	7	7
Net income available to common shareholders including dilutive impact of exchangeable shares	2,727	2,489	5,671	4,859
Weighted average number of common shares (in thousands)	1,468,015	1,487,346	1,476,273	1,486,871
Stock options (1)	3,495	3,133	3,878	3,264
Issuable under other share-based compensation plans	743	732	740	725
Exchangeable shares (2)	3,309	4,398	3,441	4,385
Average number of diluted common shares (in thousands)	1,475,562	1,495,609	1,484,332	1,495,245
Diluted earnings per share (in dollars)	\$ 1.85	\$ 1.66	\$ 3.82	\$ 3.25

(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 April 30, 2017, no outstanding options were excluded from the calculation of diluted earnings per share (April 30, 2016 – 2,730,358 with an average exercise price of \$75.13). For the six months ended April 30, 2017, no outstanding options were excluded from the calculation of diluted earnings per share (April 30, 2016 – 2,409,791 with an average exercise price of \$75.23).

(2) Includes exchangeable preferred shares and trust capital securities.

Note 12 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 include the matters disclosed in our audited 2016 Annual Consolidated Financial Statements as updated below:

LIBOR regulatory investigations and litigation

On December 20, 2016, the U.S. District Court for the Southern District of New York dismissed a substantial portion of the consolidated LIBOR class action on jurisdictional grounds and lack of standing.

Royal Bank of Canada Trust Company (Bahamas) Limited (RBC Bahamas) proceedings

On January 12, 2017, the French court acquitted all parties, including RBC Bahamas. The French prosecutor's office has appealed.

Wisconsin school districts litigation

In December 2016, this lawsuit was settled for an amount that was not material.

Inquiries on sales practices

We have received inquiries about our sales practices and related compensation arrangements. In addition, in March 2017, the Financial Consumer Agency of Canada announced that it will begin a review of sales practices in the Canadian federally regulated financial sector. We understand that the Office of the Superintendent of Financial Institutions will be involved in conducting this sales practices review.

Note 13 Results by business segment

The following tables present operating result information for our business segments.

(Millions of Canadian dollars)	For the three months ended April 30, 2017						
	Personal & Commercial Banking	Wealth Management (1)	Insurance	Investor & Treasury Services	Capital Markets (2)	Corporate Support (2)	Total
Net interest income (3) (4)	\$ 2,597	\$ 546	\$ –	\$ 173	\$ 922	\$ (40)	\$ 4,198
Non-interest income	1,153	1,881	1,448	435	1,195	–	6,112
Total revenue	3,750	2,427	1,448	608	2,117	(40)	10,310
Provision for credit losses	262	15	–	–	24	1	302
Insurance policyholder benefits, claims and acquisition expense	–	–	1,090	–	–	–	1,090
Non-interest expense	1,661	1,838	140	355	1,173	62	5,229
Net income (loss) before income taxes	1,827	574	218	253	920	(103)	3,689
Income taxes (recoveries)	467	143	52	60	252	(94)	880
Net income	\$ 1,360	\$ 431	\$ 166	\$ 193	\$ 668	\$ (9)	\$ 2,809
Non-interest expense includes:							
Depreciation and amortization	\$ 88	\$ 105	\$ 5	\$ 13	\$ 5	\$ 181	\$ 397
Restructuring provisions	–	–	–	–	–	–	–

(Millions of Canadian dollars)	For the three months ended April 30, 2016						
	Personal & Commercial Banking	Wealth Management (1)	Insurance	Investor & Treasury Services	Capital Markets (2)	Corporate Support (2)	Total
Net interest income (3) (4)	\$ 2,527	\$ 466	\$ –	\$ 190	\$ 993	\$ (151)	\$ 4,025
Non-interest income	1,107	1,714	1,351	350	997	(18)	5,501
Total revenue	3,634	2,180	1,351	540	1,990	(169)	9,526
Provision for credit losses	279	7	–	–	123	51	460
Insurance policyholder benefits, claims and acquisition expense	–	–	988	–	–	–	988
Non-interest expense	1,614	1,670	157	352	1,080	14	4,887
Net income (loss) before income taxes	1,741	503	206	188	787	(234)	3,191
Income taxes (recoveries)	444	117	29	49	204	(225)	618
Net income	\$ 1,297	\$ 386	\$ 177	\$ 139	\$ 583	\$ (9)	\$ 2,573
Non-interest expense includes:							
Depreciation and amortization	\$ 82	\$ 101	\$ 5	\$ 13	\$ 4	\$ 160	\$ 365
Restructuring provisions	–	–	–	–	–	–	–

(Millions of Canadian dollars)	For the six months ended April 30, 2017						
	Personal & Commercial Banking	Wealth Management (1)	Insurance	Investor & Treasury Services	Capital Markets (2)	Corporate Support (2)	Total
Net interest income (3) (4)	\$ 5,246	\$ 1,087	\$ –	\$ 410	\$ 1,869	\$ (90)	\$ 8,522
Non-interest income	2,534	3,771	1,945	829	2,319	(64)	11,334
Total revenue	7,780	4,858	1,945	1,239	4,188	(154)	19,856
Provision for credit losses	511	28	–	–	56	1	596
Insurance policyholder benefits, claims and acquisition expense	–	–	1,273	–	–	–	1,273
Non-interest expense	3,384	3,693	280	705	2,298	84	10,444
Net income (loss) before income taxes	3,885	1,137	392	534	1,834	(239)	7,543
Income taxes (recoveries)	933	276	92	127	504	(225)	1,707
Net income	\$ 2,952	\$ 861	\$ 300	\$ 407	\$ 1,330	\$ (14)	\$ 5,836
Non-interest expense includes:							
Depreciation and amortization	\$ 186	\$ 219	\$ 9	\$ 26	\$ 10	\$ 361	\$ 811
Restructuring provisions	–	–	–	–	–	–	–

	For the six months ended April 30, 2016						
(Millions of Canadian dollars)	Personal & Commercial Banking	Wealth Management (1)	Insurance	Investor & Treasury Services	Capital Markets (2)	Corporate Support (2)	Total
Net interest income (3) (4)	\$ 5,099	\$ 935	\$ –	\$ 416	\$ 2,055	\$ (284)	\$ 8,221
Non-interest income	2,218	3,332	2,510	674	1,915	15	10,664
Total revenue	7,317	4,267	2,510	1,090	3,970	(269)	18,885
Provision for credit losses	563	12	–	–	243	52	870
Insurance policyholder benefits, claims and acquisition expense	–	–	1,817	–	–	–	1,817
Non-interest expense	3,290	3,348	317	713	2,155	24	9,847
Net income (loss) before income taxes	3,464	907	376	377	1,572	(345)	6,351
Income taxes (recoveries)	877	218	68	95	419	(346)	1,331
Net income	\$ 2,587	\$ 689	\$ 308	\$ 282	\$ 1,153	\$ 1	\$ 5,020
Non-interest expense includes:							
Depreciation and amortization	\$ 164	\$ 207	\$ 9	\$ 26	\$ 11	\$ 334	\$ 751
Restructuring provisions	–	8	–	–	–	–	8

- (1) In the first quarter of 2016, we changed the organizational structure of our Wealth Management operations resulting in a new operating segment U.S. Wealth Management (including City National) representing our legacy U.S. Wealth Management operations and City National. This new operating segment is combined with our other Wealth Management operations as a single reportable segment because they have comparable products, regulatory frameworks, processes, customers and distribution channels, and show similar economic characteristics (such as pre-tax margin).
- (2) Taxable equivalent basis.
- (3) Inter-segment revenue and share of profits in joint ventures and associates are not material.
- (4) Interest revenue is reported net of interest expense as management relies primarily on net interest income as a performance measure.

The following tables present total assets and total liabilities for our business segments.

	As at April 30, 2017						
(Millions of Canadian dollars)	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets	Corporate Support	Total
Total assets	\$ 420,495	\$ 90,356	\$ 14,288	\$ 142,911	\$ 502,656	\$ 32,213	\$ 1,202,919
Total liabilities	\$ 420,574	\$ 90,430	\$ 14,315	\$ 142,790	\$ 502,620	\$ (40,978)	\$ 1,129,751

	As at October 31, 2016						
(Millions of Canadian dollars)	Personal & Commercial Banking	Wealth Management	Insurance	Investor & Treasury Services	Capital Markets	Corporate Support	Total
Total assets	\$ 411,251	\$ 91,901	\$ 14,245	\$ 139,701	\$ 492,899	\$ 30,261	\$ 1,180,258
Total liabilities	\$ 411,320	\$ 91,908	\$ 14,281	\$ 139,608	\$ 493,044	\$ (41,515)	\$ 1,108,646

Note 14 Capital management**Regulatory capital and capital ratios**

OSFI formally establishes risk-based capital and leverage targets for deposit-taking institutions in Canada. During the second quarter of 2017, we complied with all capital and leverage requirements imposed by OSFI.

	As at	
	April 30 2017	October 31 2016
(Millions of Canadian dollars, except Capital ratios and leverage ratios)		
Capital ⁽¹⁾		
Common Equity Tier 1 capital	\$ 49,598	\$ 48,181
Tier 1 capital	56,686	55,270
Total capital	66,235	64,950
Risk-weighted assets used in calculation of capital ratios ^{(1) (2)}		
Common Equity Tier 1 capital ratio	469,718	447,436
Tier 1 capital ratio	470,528	448,662
Total capital ratio	471,176	449,712
Total capital risk-weighted assets ⁽¹⁾		
Credit risk	385,065	369,751
Market risk	28,429	23,964
Operational risk	57,682	55,997
	\$ 471,176	\$ 449,712
Capital ratios and leverage ratios ^{(1) (3)}		
Common Equity Tier 1 capital ratio	10.6%	10.8%
Tier 1 capital ratio	12.0%	12.3%
Total capital ratio	14.1%	14.4%
Leverage ratio	4.3%	4.4%
Leverage ratio exposure (billions)	\$ 1,311.7	\$ 1,265.1

(1) Capital, risk-weighted assets and capital ratios are calculated using OSFI Capital Adequacy Requirements. Leverage ratio is calculated using OSFI Leverage Requirements.

(2) Effective the third quarter of 2014, the credit valuation adjustment to our risk-weighted asset calculation implemented in the first quarter of 2014 must reflect different percentages for each tier of capital. This change reflects a phase-in of credit valuation adjustments ending in the fourth quarter of 2018. During this phase-in period, risk-weighted assets for Common Equity Tier 1, Tier 1 and Total capital ratios will be subject to different annual credit valuation adjustment percentages.

(3) To enhance comparability among other global financial institutions, our transitional Common Equity Tier 1 capital, Tier 1, Total capital and leverage ratios as at April 30, 2017 were 11.1%, 12.1%, 14.1%, and 4.4%, respectively. Transitional is defined as capital calculated according to the current year's phase-in of regulatory adjustments and phase-out of non-qualifying capital instruments.

Note 15 Subsequent events

On May 12, 2017, we completed the previously announced sale of our trust, custody and fund administration business in the Caribbean to SMP Group Limited. The transaction will not have a significant impact on our financial statements.

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-1 and C-2. The related
depository shares of the series C-1
and 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
Canada
Tel: 416-955-7806

Financial analysts, portfolio managers, institutional investors

For financial information inquiries,
please contact: Investor Relations
Royal Bank of Canada
200 Bay Street
North Tower
Toronto, Ontario M5J 2W7
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
March 14, 2017 to March 10, 2018.
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 (OSFI).

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.

2017 Quarterly earnings release dates

First quarter	February 24
Second quarter	May 25
Third quarter	August 23
Fourth quarter	November 29

Dividend dates for 2017

Subject to approval by the Board of Directors

	Ex-dividend Dates	Record dates	Payment dates
Common and preferred shares series W, AA, AB, AC, AD, AE, AF, AG, AJ, AK, AL, AZ, BB, BD, BF, BH, BI, BJ, BK and BM	January 24 April 21 July 24 October 24	January 26 April 25 July 26 October 26	February 24 May 24 August 24 November 24
Preferred shares series C-1 (US\$)	February 1 May 3 August 2 November 1	February 3 May 5 August 4 November 3	February 13 May 15 August 14 November 13
Preferred shares series C-2 (US\$)	January 25 April 26 July 26 October 25	January 27 April 28 July 28 October 27	February 7 May 8 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 and Nasdaq 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.

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