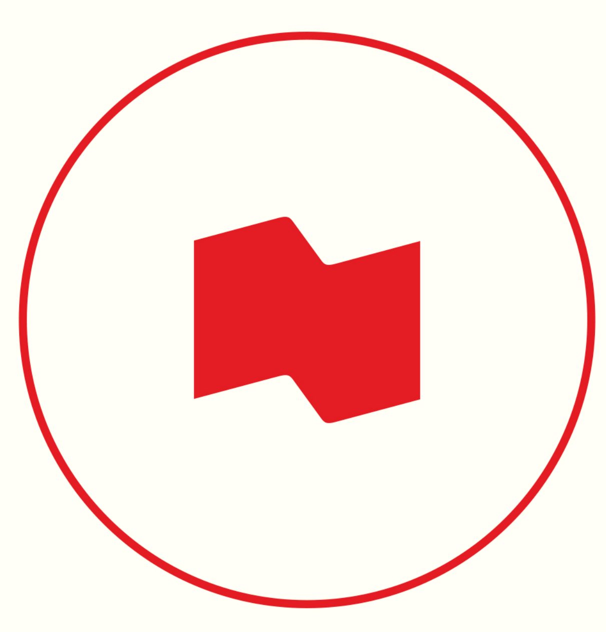
2016 ANNUAL REPORT



AT A GLANCE

National Bank of Canada is an integrated provider of financial services to retail, commercial, corporate and institutional clients. As at October 31, 2016, it operated in three business segments—Personal and Commercial, Wealth Management and Financial Markets—and had total assets in excess of $232 billion. Since the start of fiscal 2017, a fourth business segment has been added, namely, U.S. Specialty Finance and International.

Through some 21,000 employees, National Bank offers a complete range of financial services that include: banking and investment solutions for individuals and businesses as well as securities brokerage, insurance and wealth management services.

National Bank is the leading bank in Quebec and the partner of choice for small and medium-sized enterprises. It is one of the six systemically important banks in Canada and has branches in almost every province. Clients in the United States, Europe and other parts of the world are served through a network of representative offices, subsidiaries and partnerships.

Its head office is located in Montreal and its securities are listed on the Toronto Stock Exchange.

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National Bank by the numbers

21,770
EMPLOYEES

450
BRANCHES

938
BANKING MACHINES

2.4
MILLION
CLIENTS

398
BILLION $
ASSETS UNDER MANAGEMENT AND ADMINISTRATION

232
BILLION $
TOTAL ASSETS

5,840
MILLION $
TOTAL REVENUES

1,256
MILLION $
NET INCOME

16.2
BILLION $
MARKET CAPITALIZATION

FINANCIAL OVERVIEW

As at October 31 or for the year ended October 31 (millions of Canadian dollars, except per share amounts)	2016	2015	% change
Operating results			
Total revenues	**5,840**	5,746	**2**
Net income	**1,256**	1,619	**(22)**
Diluted earnings per share	**$ 3.29**	$ 4.51	**(27)**
Return on common shareholders' equity	**11.7 %**	16.9 %	
Excluding specified items[(1)] **Operating results** (taxable equivalent basis)[(1)]			
Total revenues	**6,279**	5,982	**5**
Net income	**1,613**	1,682	**(4)**
Diluted earnings per share	**$ 4.35**	$ 4.70	**(7)**
Return on common shareholders' equity	**15.5 %**	17.6 %	
Efficiency ratio	**58.2 %**	58.6 %	
Dividends declared	**$ 2.18**	$ 2.04	
Total assets	**232,206**	216,090	**7**
Regulatory ratios under Basel III			
Common Equity Tier 1 (CET1) capital ratio	**10.1 %**	9.9 %	
Leverage ratio	**3.7 %**	3.7 %	
Liquidity coverage ratio (LCR)	**134 %**	131 %	

(1) See the Financial Reporting Method section on page 10.

Our social responsibility 2016

HELPING OUR CLIENTS POWER THEIR IDEAS

- Leading-edge digital and mobile banking services
- New branch concepts where advice and technology converge
- Active participation in developing the entrepreneurial ecosystem

SUPPORTING THE COMMUNITY

- More than $25 million paid to communities
- Hundreds of organizations supported Canada-wide
- Committed to enhancing the impact of our social investments

FUELLING ECONOMIC DEVELOPMENT

- More than $100 million invested in our facilities
- $1 billion spent on goods and services
- $2 billion paid in salaries and employee benefits

PROMOTING DIVERSITY

- Ongoing support of women, cultural communities, the LGBT community and persons with limitations
- Industry-leading representation of women among management and directors

HELPING PROTECT THE ENVIRONMENT

- Award-winning energy efficiency program
- Received several LEED® certifications

To learn more:
nbc.ca

MESSAGE FROM THE PRESIDENT AND CHIEF EXECUTIVE OFFICER

Fiscal 2016 was a year of repositioning for National Bank. The development of long-term growth activities was accompanied by economic and operational challenges that we swiftly overcame to ensure continued healthy growth. Through these actions, transformation of the organization has moved forward quickly, and the Bank has continued to build up its financial strength. Firmly committed to satisfying changing client preferences, every team in the organization has redoubled their efforts to further improve the service offering.

A Solid Organization

With revenue approaching $6 billion, total assets of $232 billion and a CET1 capital ratio of 10.1%, National Bank is one of the world's strongest organizations. During the year, the organization was proactive in recording a $250 million provision to address credit uncertainty in its oil and gas loan portfolio.

We also recorded a charge related to certain restructuring initiatives as well as intangible asset write-offs. This decision came as part of our efforts to capitalize on the shift towards the digital economy, which is providing tangible growth opportunities for the Bank but also requiring us to be even more agile and efficient. Our organization is now well-positioned to seize the benefits.

> **[...] the shift towards the digital economy is providing tangible growth opportunities for the Bank but also requiring us to be even more agile and efficient.**

Improved Client Experience

During the year, the Bank's business segments continued to develop, both in terms of client experience and service offering improvements. In the Personal and Commercial segment, enhancements to our digital services continued, and the branch network continued to evolve into more modern spaces adapted to the new banking reality. In Wealth Management, our geographic footprint expanded yet again, with the opening of branches in Calgary and Vancouver. The Financial Markets team, on its side, further developed its trademark activities and is again a Canadian leader in government and corporate bond financing.

In this regard, we are especially proud of the modernization of the Montreal trading room, which was inaugurated last October. That project, representing a $13 million investment, consisted notably of installing advanced technological equipment that will certainly help drive the growth of the Financial Markets segment in the years ahead.

A Targeted International Presence

With an eye on long-term growth, and to seize the potential of developing countries, in 2016 the Bank continued to consolidate its ownership interests in targeted international institutions. Acquiring a majority interest in ABA Bank in Cambodia last May was a milestone in that process. We believe that, in addition to driving growth, these institutions can also play a role in the international development of our commercial clients.

Given this growth in international activity, we also announced that, starting in the first quarter of fiscal 2017, a fourth business segment has been created to report on these activities.

In addition, in fall 2016, the Bank became the first North American financial institution to issue Panda bonds in continental China.

A Changing Business Environment

The business environment in which we're currently operating is characterized by a very particular duality: slow economic growth, which is likely to continue over the short and medium term, combined with fast-paced change across many aspects of economic activity. Here are a few examples that are especially significant for the financial services industry:

- An aging population. The arrival of newcomers and the rise of the millennial generation are radically changing the demographic fabric.
- Consumer habits are changing at an unprecedented rate. Access to information, e-business and online services, along with higher-than-ever client experience expectations, are compelling businesses to reinvent themselves.
- New technologies have triggered the start of the fourth industrial revolution. Artificial intelligence and automation will lead to major reconfigurations in work organization and production methods.

In response to this accelerated change, organizations have split into two groups: those that are actively seizing opportunities from the new reality and those that are simply experiencing it. National Bank firmly intends to be part of the first group. Given that perspective, a clear strategy as well as significant investments in our activities will be essential.

MESSAGE FROM THE PRESIDENT AND CHIEF EXECUTIVE OFFICER (cont.)

Priorities for Fiscal 2017

In 2016, we deployed a new phase of *one client, one bank*, the vision that has guided the organization's initiatives since 2008. Our strategic priorities have been updated to make us even more agile to face the current challenges.

A pooling of input from organizational decision-makers helped to define the business priorities that will require sustained attention in the coming years. Essentially, in addition to concentrating on the domains for which the Bank has become known since its inception, we will continue to make the organization even more streamlined and efficient such that we can consistently respond to client requirements with agility, particularly in areas of technology.

To support these initiatives, we created a Chief Transformation Officer position. In so doing, we hope to better orchestrate deployments and accelerate the delivery of benefits across the organization.

> [...] we will continue to make the organization even more streamlined and efficient such that we can consistently respond to client requirements with agility [...]

Investing in Our Activities and Developing Talent

As always, achieving organizational goals requires sustained investment in every facet of our business. Fiscal 2016 was no exception to this rule.

- Technology: Average annual investments of approximately $350 million are made to improve our current systems and develop new ones.
- Facilities and operations: More than $100 million per year is earmarked for our buildings. About $1 billion is used to purchase diverse goods and services. These investments generate significant benefits for many businesses and suppliers across the country.
- Employees: Some $2 billion is paid annually in salaries and employee benefits. We also expect to see an increasing number of knowledge-intensive jobs within the organization in the coming years.

During fiscal 2016, we also took steps to further strengthen the pool of expertise within the Office of the President with two appointments. Denis Girouard was appointed leader of the Financial Markets segment, replacing Ricardo Pascoe, who now serves as Chief Transformation Officer. Martin Gagnon became leader of the Wealth Management segment, succeeding Luc Paiement, who is now an Executive Advisor.

Our efforts to continually improve employee experience and maintain workplace productivity are paying off, with our organization being named a Best Employer for a 12th year in 2016.

National Bank is proud to be listed, year after year, as one of Canada's best employers, and to do so in this rapidly changing environment.

Our ability to strike a balance among our various stakeholders has underpinned National Bank's success since it was founded more than 150 years ago. As a matter of fact, we are facing the future with great confidence. The Bank is well placed to strengthen its competitive position, and we are determined to fully capitalize on current conditions and seize the business opportunities that lie ahead.

Louis Vachon
President and Chief Executive Officer

OFFICE OF THE PRESIDENT MEMBERS

Louis Vachon
President and Chief Executive Officer

William Bonnell
Executive Vice-President,
Risk Management

Dominique Fagnoule
Executive Vice-President,
Information Technology

Martin Gagnon
Executive Vice-President,
Wealth Management;
Co-President and Co-Chief Executive Officer,
National Bank Financial

Diane Giard
Executive Vice-President,
Personal and Commercial Banking

Denis Girouard
Executive Vice-President,
Financial Markets

Brigitte Hébert
Executive Vice-President,
Operations

Lynn Jeanniot
Executive Vice-President,
Human Resources and Corporate Affairs

Karen Leggett
Chief Marketing Officer and
Executive Vice-President,
Corporate Development

Ghislain Parent
Chief Financial Officer and
Executive Vice-President,
Finance and Treasury

Ricardo Pascoe
Chief Transformation Officer and
Executive Vice-President,
Strategic Initiatives Office

MESSAGE FROM THE CHAIRMAN OF THE BOARD

The 2016 fiscal year was anything but conventional. In an environment of slow economic growth, low interest rates and a rapid consumer shift toward self-banking, key decisions were made to position the Bank for sustained success. With a focus on delivering long-term shareholder value, the Board of Directors was closely involved in the significant actions and strategic initiatives taken by management during the year. We remained vigilant in monitoring progress and exercising our oversight role on behalf of the Bank's shareholders and other stakeholders.

Exercising Our Role

Active participation in annual strategic reviews is one of the most important ways for the Board to fulfill its responsibilities. The Bank's primary focus is to generate organic growth in Canada, the driver of its financial performance historically and in the foreseeable future. In this regard, the Board has been very attentive to the profound impact of technological developments on the delivery of banking services, including the emergence of financial technology companies and their likely impact on the Bank's future digital strategies. The mid-year appointment of a Chief Transformation Officer was welcomed by the Board. We are satisfied that the Bank has a clear roadmap for accelerating the deployment of major back office changes and digital service initiatives that will result in significant operational efficiencies while stimulating business growth in Canada in the years to come. In this business context, the restructuring charge, write-off of intangible assets and job losses announced at fiscal year-end were necessary adjustments. While difficult, such decisions ensure the long-term viability of the Bank.

> The Bank's primary focus is to generate organic growth in Canada, the driver of its financial performance historically [...]

The Board is also fully supportive of the Bank's strategic objective to derive at least 10% of its annual net income from international operations by 2020. In fiscal 2016, a major step towards this objective was made when the Board approved the decision to increase the Bank's ownership interest in ABA Bank of Cambodia to 90%. Starting in the first quarter of fiscal 2017, a separate business segment will be used to report on the U.S. specialty finance activities and on international operations such that shareholders and investors can track the related performance.

Risk discipline is key to achieving attractive returns for shareholders and is another area where the Board can influence the Bank's behaviour. The Board closely monitors the Bank's risk profile and ensures that both opportunities and risks are considered when establishing strategic priorities. We are particularly mindful of the need to adapt the risk management framework and processes as the Bank's business and operations evolve. In this respect, the Bank's international investment strategy has been deployed in a measured and disciplined manner, and we're making sure this portfolio is receiving the requisite oversight, both for minority interests and majority interests. On the digital front, technology is revolutionizing every human activity, including banking, and all organizations globally are being vigilant about cybersecurity. The Bank completed a major investment cycle in fiscal 2016 that has significantly enhanced its technological capabilities and will continue to make every effort to maintain data safety and operational integrity.

Another area where the Board exercises oversight is in the appointments and compensation of senior management as well as in succession planning. Having the right people to lead the execution of the Bank's strategies and developing talent are priorities for the Board, and every year we devote considerable time monitoring progress on this front. The senior management team reporting to the President and Chief Executive Officer has been progressively renewed in an orderly fashion over the past several years, with seasoned executives from both inside and outside the Bank. The Board fully supports the current management team as they embark on the Bank's important transformation in the years ahead.

Board Renewal and Governance

Adoption of the best governance practices helps the Board support management and fulfill its obligations to the Bank's shareholders and other stakeholders. In 2009, we became the first bank to announce a "say on pay" vote for executive compensation at our annual meeting, and we have been commended for the high proportion of women on our Board. Last year, with the Board's consent, I initiated meetings with a number of shareholders to obtain their feedback, and I look forward to engaging directly with many more shareholders in the coming years.

The very make-up of a board is a central factor to effective governance. With that in mind, fiscal 2016 marked the completion of a carefully planned and executed multi-year Board renewal process initiated under my predecessor. The main objective, then, as it is today, is to populate the Board with individuals who collectively bring a broad diversity of relevant knowledge, experience and backgrounds aligned with the needs of the Bank and its evolving business. Adherence to a rigorous selection process, reinforced by ongoing training and evaluation of directors, has resulted in a stronger and more effective Board for today's business and regulatory environment.

MESSAGE FROM THE CHAIRMAN OF THE BOARD (cont.)

At the 2017 annual meeting, we will have a new Board candidate, appointed during the year, proposed for election. At a time when Canadian financial institutions are operating in an increasingly complex technological environment, Pierre Blouin's expertise as a CEO in telecommunications companies is an important asset for our Board, and we are pleased to have him among us.

Looking Ahead

In the coming years, the pace of change in our industry will continue to accelerate in a challenging market environment. Through the initiatives undertaken this past year, the Bank will be better prepared to meet client needs, defend its leadership positions and seize new business opportunities. With some 21,000 dedicated employees leading the way, the Bank will continue to provide attractive returns to shareholders and create tangible value to the communities it serves.

On behalf of the Board, I would like to thank the National Bank employees for their commitment to the Bank's progress and for their generosity toward those in need. Again in fiscal 2016, their contribution to Centraide/United Way was significant, and they devoted countless hours volunteering for their favourite causes.

In closing, I also thank our clients for choosing National Bank, our Board directors for their contributions and our shareholders for their continuing support.

Jean Houde
Chairman of the Board of Directors

For more information regarding the Bank's governance, please refer to the Statement of Corporate Practices available on the Bank's website at nbc.ca.

BOARD OF DIRECTORS MEMBERS

Jean Houde
Montreal, Quebec, Canada
Corporate Director
Chairman of the Board of Directors,
National Bank of Canada
Director since March 2011

Raymond Bachand
Montreal, Quebec, Canada
Strategic Advisor, Norton Rose
Fulbright Canada LLP
and Corporate Director
Director since October 2014

Maryse Bertrand
Montreal, Quebec, Canada
Strategic Advisor and Counsel,
Borden Ladner Gervais LLP
Director since April 2012

Pierre Blouin
Île-Bizard, Quebec, Canada
Corporate Director
Director since September 2016

Pierre Boivin
Montreal, Quebec, Canada
President and Chief Executive Officer,
Claridge inc.
Director since April 2013

André Caillé
Lac-Brome, Quebec, Canada
Corporate Director
Director since October 2005

Gillian H. Denham
Toronto, Ontario, Canada
Corporate Director
Director since October 2010

Richard Fortin
Boucherville, Quebec, Canada
Corporate Director
Director since August 2013

Karen Kinsley
Ottawa, Ontario, Canada
Corporate Director
Director since December 2014

Julie Payette
Montreal, Quebec, Canada
Corporate Director
Director since April 2014

Lino A. Saputo jr
Montreal, Quebec, Canada
Chief Executive Officer and
Vice-Chairman of the Board of Directors,
Saputo Inc.
Director since April 2012

Andrée Savoie
Dieppe, New Brunswick, Canada
President and Chair of the
Board of Directors,
Acadian Properties Ltd.
Director since April 2015

Pierre Thabet
St-Georges, Quebec, Canada
President, Boa-Franc inc.
Director since March 2011

Louis Vachon
Beaconsfield, Quebec, Canada
President and Chief Executive Officer,
National Bank of Canada
Director since August 2006

Board Committees

Audit Committee
Pierre Boivin *(Chair)*
André Caillé
Richard Fortin
Karen Kinsley
Julie Payette
Andrée Savoie

Human Resources Committee
André Caillé *(Chair)*
Pierre Blouin
Pierre Boivin
Gillian H. Denham
Karen Kinsley

Risk Management Committee
Richard Fortin *(Chair)*
Raymond Bachand
Maryse Bertrand
Karen Kinsley
Lino A. Saputo jr
Pierre Thabet

Conduct Review and Corporate Governance Committee
Maryse Bertrand *(Chair)*
Raymond Bachand
André Caillé
Jean Houde

RISK DISCLOSURES

In May 2012, the Financial Stability Board (FSB) formed a working group, the Enhanced Disclosure Task Force (EDTF), that was mandated to develop principles for enhancing the risk disclosures of major banks, to recommend improvements to current risk disclosures, and to identify risk disclosure best practices used by major financial institutions. On October 29, 2012, the EDTF published a report entitled *Enhancing the Risk Disclosures of Banks*, which contains 32 recommendations. The Bank makes every effort to ensure overall compliance with those recommendations and is continuing to enhance its risk disclosures to meet the best practices on an ongoing basis. The risk disclosures required by the EDTF are provided in this Annual Report and in the document entitled *Supplementary Regulatory Capital Disclosure* available on the Bank's website at nbc.ca.

		Pages	
		Annual Report	Supplementary Regulatory Capital Disclosure(1)
General			
1	Location of risk disclosures	7	
	Management's Discussion and Analysis	39 to 82, 94 and 98	
	Consolidated Financial Statements	Notes 1, 7, 17, 24 and 30	
	Supplementary Regulatory Capital Disclosure		4 to 29
2	Risk terminology and risk measures	48 to 82	
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Risk governance and risk management			
5	Risk management organization, processes and key functions	51 to 65	
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7	Key risks by business segment, risk management and risk appetite	47, 51 and 52	
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9	Minimum Pillar 1 capital requirements	40 to 42	
10	Reconciliation of the accounting balance sheet to the regulatory balance sheet		4 to 7
11	Movements in regulatory capital	44	
12	Capital planning	39 to 47	
13	RWA by business segment and by risk type	45 and 47	8
14	Capital requirements by risk and RWA calculation method	45 and 56 to 60	8
15	Banking book credit risk	45	8 and 11 to 16
16	Movements in RWA by risk type	46	9
17	Assessment of credit risk model performance	55, 58 and 67	11 to 17
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19	Summary of encumbered and unencumbered assets	74 and 75	
20	Residual contractual maturities of balance sheet items and off-balance-sheet commitments	183 to 187	
21	Funding strategy and funding sources	77 to 79	
Market risk			
22	Linkage of market risk measures to balance sheet	65 and 66	
23	Market risk factors	64, 67 to 70, 170 to 172	
24	VaR: assumptions, limitations and validation procedures	67 to 69	
25	Stress tests, stressed VaR and backtesting	67 to 70	
Credit risk			
26	Credit risk exposures	59, 63 and 141 to 144	10 to 24 and 17 to 23(2)
27	Policies for identifying impaired loans	61, 114 and 115	
28	Movements in impaired loans and allowances for credit losses	94, 98 and 141 to 144	20
29	Counterparty credit risk relating to derivatives transactions	61, 62 and 154 to 156	25 and 26
30	Credit risk mitigation	60 to 62	22 and 24
Other risks			
31	Other risks: governance, measurement and management	50 and 80 to 82	
32	Publicly known risk events	80	

(1) For the fourth quarter ended October 31, 2016.
(2) These pages are included in the document entitled *Supplementary Financial Information for the Fourth Quarter Ended October 31, 2016.*

MANAGEMENT'S DISCUSSION AND ANALYSIS

December 1, 2016

The following Management's Discussion and Analysis (MD&A) presents the financial condition and operating results of National Bank of Canada (the Bank). This analysis was prepared in accordance with the requirements set out in *National Instrument 51-102*, *Continuous Disclosure Obligations*, released by the Canadian Securities Administrators (CSA). It is based on the audited consolidated financial statements for the year ended October 31, 2016 (the consolidated financial statements) and prepared in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB). This MD&A should be read in conjunction with the consolidated financial statements and accompanying notes for the year ended October 31, 2016. All amounts are presented in Canadian dollars. Additional information about the Bank, including the *Annual Information Form*, can be obtained from the Bank's website at nbc.ca and SEDAR's website at sedar.com.

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Caution Regarding Forward-Looking Statements

From time to time, the Bank makes written and oral forward-looking statements, such as those contained in the Outlook for National Bank and the Major Economic Trends sections of this Annual Report, in other filings with Canadian securities regulators, and in other communications, for the purpose of describing the economic environment in which the Bank will operate during fiscal 2017 and the objectives it hopes to achieve for that period. These forward-looking statements are made in accordance with current securities legislation in Canada and the United States. They include, among others, statements with respect to the economy—particularly the Canadian and U.S. economies—market changes, observations regarding the Bank's objectives and its strategies for achieving them, Bank-projected financial returns and certain risks faced by the Bank. These forward-looking statements are typically identified by future or conditional verbs or words such as "outlook," "believe," "anticipate," "estimate," "project," "expect," "intend," "plan," and similar terms and expressions.

By their very nature, such forward-looking statements require assumptions to be made and involve inherent risks and uncertainties, both general and specific. Assumptions about the performance of the Canadian and U.S. economies in 2017 and how that will affect the Bank's business are among the main factors considered in setting the Bank's strategic priorities and objectives and in determining its financial targets, including provisions for credit losses. In determining its expectations for economic growth, both broadly and in the financial services sector in particular, the Bank primarily considers historical economic data provided by the Canadian and U.S. governments and their agencies.

There is a strong possibility that express or implied projections contained in these forward-looking statements will not materialize or will not be accurate. The Bank recommends that readers not place undue reliance on these statements, as a number of factors, many of which are beyond the Bank's control, could cause actual future results, conditions, actions or events to differ significantly from the targets, expectations, estimates or intentions expressed in the forward-looking statements. These factors include credit risk, market risk, liquidity and funding risk, operational risk, regulatory compliance risk, reputation risk, strategic risk and environmental risk, all of which are described in more detail in the Risk Management section beginning on page 48 of this Annual Report, general economic environment and financial market conditions in Canada, the United States and certain other countries in which the Bank conducts business, including regulatory changes affecting the Bank's business, capital and liquidity; changes in the accounting policies the Bank uses to report its financial condition, including uncertainties associated with assumptions and critical accounting estimates; tax laws in the countries in which the Bank operates, primarily Canada and the United States (including the U.S. *Foreign Account Tax Compliance Act* (FATCA)); changes to capital and liquidity guidelines and to the manner in which they are to be presented and interpreted; changes to the credit ratings assigned to the Bank; and potential disruptions to the Bank's information technology systems, including evolving cyber attack risk.

The foregoing list of risk factors is not exhaustive. Additional information about these factors can be found in the Risk Management section of this Annual Report. Investors and others who rely on the Bank's forward-looking statements should carefully consider the above factors as well as the uncertainties they represent and the risk they entail. Except as required by law, the Bank does not undertake to update any forward-looking statements, whether written or oral, that may be made from time to time, by it or on its behalf.

The forward-looking information contained in this document is presented for the purpose of interpreting the information contained herein and may not be appropriate for other purposes.

FINANCIAL REPORTING METHOD

The Bank uses certain measurements that do not comply with IFRS to assess results. Moreover, the Bank has adjusted certain specified items to make the data from fiscal 2016 and 2015 comparable. These adjustments are presented in the table below.

Reconciliation of Measures Not Compliant With IFRS

Year ended October 31 (millions of Canadian dollars)					2016	2015
	Personal and Commercial	Wealth Management	Financial Markets	Other		
Net interest income	1,919	372	751	(86)	2,956	2,682
Taxable equivalent[1]	–	–	229	2	231	311
Financing cost related to holding restructured notes[2]	–	–	–	9	9	20
Net interest income on a taxable equivalent basis and excluding specified items	1,919	372	980	(75)	3,196	3,013
Non-interest income	982	1,068	653	181	2,884	3,064
Taxable equivalent[1]	–	–	4	–	4	–
Revenues related to holding restructured notes[2]	–	–	–	–	–	(90)
Acquisition-related revenues[3]	–	10	–	21	31	11
Write-off of an equity interest in an associate[4]	–	–	164	–	164	–
Gain on disposal of Fiera Capital shares[5]	–	–	–	–	–	(34)
Share of current tax asset write-down of an associate[6]	–	–	–	–	–	18
Non-interest income excluding specified items	982	1,078	821	202	3,083	2,969
Total revenues on a taxable equivalent basis and excluding specified items	2,901	1,450	1,801	127	6,279	5,982
Non-interest expenses	1,640	998	796	441	3,875	3,665
Charges related to acquisitions[7]	–	(22)	–	–	(22)	(23)
Restructuring charge[8]	–	–	–	(131)	(131)	(86)
Impairment losses on intangible assets[9]	–	–	–	(44)	(44)	(46)
Litigation charges[10]	–	–	–	(25)	(25)	–
Underwriting fees on disposal of Fiera Capital shares[5]	–	–	–	–	–	(5)
Non-interest expenses excluding specified items	1,640	976	796	241	3,653	3,505
Contribution on a taxable equivalent basis and excluding specified items	1,261	474	1,005	(114)	2,626	2,477
Provisions for credit losses	475	5	4	–	484	228
Income before income taxes on a taxable equivalent basis and excluding specified items	786	469	1,001	(114)	2,142	2,249
Income taxes	212	116	29	(132)	225	234
Taxable equivalent[1]	–	–	233	2	235	311
Income taxes on the revenues related to holding restructured notes[2]	–	–	–	3	3	(20)
Income taxes on acquisition-related items[3][7]	–	6	–	5	11	7
Income taxes on the write-off of an equity interest in an associate[4]	–	–	19	–	19	–
Income taxes on restructuring charge[8]	–	–	–	35	35	24
Income taxes on intangible asset impairment losses[9]	–	–	–	12	12	13
Income taxes on litigation charges[10]	–	–	–	7	7	–
Income taxes on disposal of Fiera Capital shares[5]	–	–	–	–	–	(4)
Income taxes on current tax asset write-down of an associate[6]	–	–	–	–	–	2
Income taxes on impact of changes to tax measures[11]	–	–	–	(18)	(18)	–
Income taxes on a taxable equivalent basis and excluding specified items	212	122	281	(86)	529	567
Net income excluding specified items	574	347	720	(28)	1,613	1,682
Specified items after income taxes[12]	–	(26)	(145)	(186)	(357)	(63)
Net income	574	321	575	(214)	1,256	1,619
Non-controlling interests	–	–	18	57	75	70
Net income attributable to the Bank's shareholders	574	321	557	(271)	1,181	1,549

(1) The Bank uses the taxable equivalent basis to calculate net interest income, non-interest income and income taxes. This calculation method consists of grossing up certain tax-exempt income (particularly dividends) by the income tax that would have been otherwise payable. An equivalent amount is added to income taxes. This adjustment is necessary in order to perform a uniform comparison of the return on different assets regardless of their tax treatment.

(2) During the year ended October 31, 2016, the Bank recorded $9 million in financing costs ($6 million net of income taxes) related to holding restructured notes (2015: $20 million, $16 million net of income taxes). In fiscal 2015, the Bank had recorded $53 million in revenues ($39 million net of income taxes) to reflect capital repayments and a rise in the fair value of the notes as well as a gain of $37 million ($27 million net of income taxes) upon the disposal of the restructured notes of the MAV III conduits.

(3) During the year ended October 31, 2016, the Bank recorded an amount of $10 million ($8 million net of income taxes) for its share in the integration costs incurred by Fiera Capital Corporation (Fiera Capital) and an amount of $21 million ($16 million net of income taxes) for its share in the integration costs, particularly goodwill and intangible asset impairment losses, related to its equity interest in TMX Group Limited (TMX). For the year ended October 31, 2015, the total amount of these costs was $11 million ($9 million net of income taxes).

(4) During the year ended October 31, 2016, the Bank wrote off its equity interest in associate Maple Financial Group Inc. (Maple) in an amount of $164 million ($145 million net of income taxes) following the February 6, 2016 event described in the Analysis of the Consolidated Balance Sheet section on page 35.

(5) During the year ended October 31, 2015, a gain, net of underwriting fees, of $29 million ($25 million net of income taxes) was recorded upon a disposal of shares held in Fiera Capital through one of the Bank's subsidiaries.

(6) During the year ended October 31, 2015, a loss of $18 million ($16 million net of income taxes) was recorded following a write-down of an associate's current tax asset.

(7) During the year ended October 31, 2016, the Bank recorded $22 million in charges ($18 million net of income taxes) related to the Wealth Management acquisitions (2015: $23 million, $18 million net of income taxes). These charges consisted mostly of retention bonuses.

(8) During the year ended October 31, 2016, the Bank recorded a restructuring charge of $131 million, $96 million net of income taxes (2015: $86 million, $62 million net of income taxes). These charges consisted mostly of severance pay.

(9) During the year ended October 31, 2016, the Bank recorded $44 million ($32 million net of income taxes) in intangible asset impairment losses on technology developments (2015: $46 million, $33 million net of income taxes).

(10) During the year ended October 31, 2016, the Bank recorded $25 million in litigation charges ($18 million net of income taxes) related to resolving litigation and other disputes arising from claims, both ongoing and potential, made against the Bank (2015: nil).

(11) During the year ended October 31, 2016, an $18 million tax provision was recorded to reflect the impact of substantively enacted changes to tax measures.

(12) For the year ended October 31, 2016, the specified items included a premium of $3 million, or $0.01 per share, on the redemption of the Series 20 preferred shares for cancellation.

Securities regulators require companies to caution readers that net income and any other measurements adjusted using non-IFRS criteria have no standard meaning under IFRS and cannot be easily compared with similar measurements used by other companies.

The Bank's consolidated financial statements have been prepared in accordance with IFRS, as issued by the IASB. The Bank also uses non-IFRS financial measures when assessing its results and measuring Bank-wide performance. Presenting such information helps readers to better understand how management analyzes results, shows the impacts of specified items on the results of the reported periods, and allows readers to assess results without the specified items if they consider such items to not be reflective of ordinary operations. In addition to the specified items, in fiscal 2016 the Bank recorded a sectoral provision of $250 million ($183 million net of income taxes) on non-impaired loans in the oil and gas producer and service company portfolio, reporting it in the Personal and Commercial segment. Given the materiality of the sectoral provision recognized and presented in accordance with IFRS, it has been excluded from certain analyses in this MD&A.

Like many other financial institutions, the Bank uses the taxable equivalent basis to calculate net interest income, non-interest income and income taxes. This calculation method consists of grossing up certain tax-exempt income (particularly dividends) by the income tax that would have been otherwise payable. An equivalent amount is added to income taxes. This adjustment is necessary in order to perform a uniform comparison of the return on different assets regardless of their tax treatment.

FINANCIAL DISCLOSURE

Disclosure Controls and Procedures

The Bank's financial information is prepared with the support of a set of disclosure controls and procedures (DC&P) that are implemented by the President and Chief Executive Officer (CEO) and by the Chief Financial Officer (CFO) and Executive Vice-President of Finance and Treasury. During the year ended October 31, 2016, in accordance with *Regulation 52-109 Respecting Certification of Disclosure in Issuers' Annual and Interim Filings* (Regulation 52-109), released by the CSA, the design and operation of these controls and procedures were evaluated to determine their effectiveness.

As at October 31, 2016, the CEO and the CFO confirmed the effectiveness of the DC&P. These controls are designed to provide reasonable assurance that the information disclosed in annual and interim filings and in other reports filed or submitted under securities legislation is recorded, processed, summarized and reported within the time periods specified by that legislation. These controls and procedures are also designed to ensure that such information is accumulated and communicated to the Bank's management, including its signing officers, as appropriate, to allow for timely decisions regarding disclosure.

This Annual Report was reviewed by the Disclosure Committee, the Audit Committee, and the Bank's Board of Directors (the Board), which approved it prior to publication.

Internal Controls Over Financial Reporting

The internal controls over financial reporting (ICFR) are designed to provide reasonable assurance that the financial information presented is reliable and that the consolidated financial statements were prepared in accordance with IFRS, as issued by the IASB. Due to inherent limitations, ICFR may not prevent or detect all misstatements in a timely manner.

The CEO and the CFO oversaw the evaluation work performed on the design and operation of the Bank's ICFR in accordance with Regulation 52-109. These controls were evaluated in accordance with the control framework of the *Committee of Sponsoring Organizations of the Treadway Commission* (COSO — 2013) for financial controls and in accordance with the control framework of the *Control Objectives for Information and Related Technologies* (COBIT) for general information technology controls.

Based on the evaluation results, the CEO and CFO concluded, as at October 31, 2016, that there are no material weaknesses, that the ICFR are effective and provide reasonable assurance that the financial reporting is reliable, and that the Bank's consolidated financial statements were prepared in accordance with IFRS.

Changes to Internal Controls Over Financial Reporting

The CEO and CFO also undertook work under which they were able to conclude that, during the year ended October 31, 2016, no changes were made to the ICFR that have materially affected, or are reasonably likely to materially affect, the design or operation of the ICFR.

Disclosure Committee

The Disclosure Committee assists the CEO and CFO by ensuring that disclosure controls and procedures and internal control procedures for financial reporting are implemented and operational. In so doing, the Committee ensures that the Bank is meeting its disclosure obligations under current regulations and that the CEO and CFO are producing the requisite certifications.

OVERVIEW

Highlights

As at October 31 or for the year ended October 31 (millions of Canadian dollars, except per share amounts)	2016	2015	2014	2016-15 % change
Operating Results				
Total revenues	5,840	5,746	5,464	2
Net income	1,256	1,619	1,538	(22)
Net income attributable to the Bank's shareholders	1,181	1,549	1,469	(24)
Return on common shareholders' equity	11.7 %	16.9 %	17.9 %	
Dividend payout ratio[1]	66 %	45 %	43 %	
Earnings per share				
Basic	$ 3.31	$ 4.56	$ 4.36	(27)
Diluted	3.29	4.51	4.32	(27)
Excluding Specified Items[2]				
Operating Results				
(taxable equivalent basis)[2]				
Total revenues	6,279	5,982	5,638	5
Net income	1,613	1,682	1,593	(4)
Net income attributable to the Bank's shareholders	1,538	1,612	1,524	(5)
Return on common shareholders' equity	15.5 %	17.6 %	18.5 %	
Dividend payout ratio[1]	50 %	43 %	42 %	
Efficiency ratio	58.2 %	58.6 %	58.6 %	
Earnings per share				
Basic	$ 4.38	$ 4.75	$ 4.53	(8)
Diluted	4.35	4.70	4.48	(7)
Common share information				
Dividends declared	$ 2.18	$ 2.04	$ 1.88	
Book value	28.52	28.26	25.76	
Share price				
High	47.88	55.06	53.88	
Low	35.83	40.75	41.60	
Close	47.88	43.31	52.68	
Number of common shares *(thousands)*	338,053	337,236	329,297	
Market capitalization	16,186	14,606	17,347	
Balance sheet and off-balance-sheet				
Total assets	232,206	216,090	205,429	7
Loans and acceptances	126,178	115,238	106,169	9
Impaired loans, net of total allowances	(289)	(112)	(118)	
As a % of loans and acceptances	(0.2) %	(0.1) %	(0.1) %	
Deposits	139,907	128,830	119,883	9
Equity attributable to common shareholders	9,642	9,531	8,484	1
Assets under administration and under management	398,216	358,139	345,332	11
Earnings coverage	7.84	10.49	8.98	
Asset coverage	10.04	6.78	5.24	
Regulatory ratios under Basel III				
Capital ratios[3]				
Common Equity Tier 1 (CET1)	10.1 %	9.9 %	9.2 %	
Tier 1[4]	13.5 %	12.5 %	12.3 %	
Total[4][5]	15.3 %	14.0 %	15.1 %	
Leverage ratio[3]	3.7 %	3.7 %	n.a.	
Liquidity coverage ratio (LCR)	134 %	131 %	n.a.	
Other Information				
Number of employees[6]	21,770	20,189	20,522	8
Number of branches in Canada	450	452	452	–
Number of banking machines	938	930	935	1

n.a. Not applicable
(1) Last four quarters.
(2) See the Financial Reporting Method section on page 10.
(3) The ratios are calculated using the "all-in" methodology.
(4) Ratios as at October 31, 2015 include the redemption of the Series 20 preferred shares on November 15, 2015, and the ratios as at October 31, 2014 include the redemption of the Series 16 preferred shares on November 15, 2014.
(5) The ratio as at October 31, 2015 includes the $500 million redemption of medium-term notes on November 2, 2015.
(6) Number of employees includes employees from Credigy Ltd. and Advanced Bank of Asia Limited.

About National Bank

The Bank is an integrated group that provides comprehensive financial services to consumers, small and medium-sized enterprises (SME) and large corporations in its domestic market while also offering specialized services internationally. It offers a full array of banking services, including all the services of an investment bank for large corporations. It operates in international capital markets and, through its subsidiaries, in securities brokerage, insurance, and wealth management markets.

The Bank is the leading bank in Quebec and the partner of choice for SMEs. It is also one of the six systemically important banks in Canada and has branches in almost every province. Clients in the United States, Europe and other parts of the world are served through a network of representative offices, subsidiaries and partnerships. Its securities are listed on the Toronto Stock Exchange and its head office is located in Montreal.

The Bank carries out its activities in three business segments, Personal and Commercial, Wealth Management and Financial Markets. For presentation purposes, other activities are reported in the *Other* heading. Each reportable segment is distinguished by services offered, type of clientele and marketing strategy. Additional information is provided in the Business Segment Analysis section of this MD&A.

2016 Objectives and Results

When the Bank sets its medium-term objectives, it does not take specified items[1] into consideration, as they are inherently unpredictable and non-recurring. Management examines the Bank's performance in relation to its objectives excluding the specified items.

In fiscal 2016, the Bank recorded $1,256 million in net income compared to $1,619 million in fiscal 2015. Diluted earnings per share for 2016 stood at $3.29 versus $4.51 in 2015, and return on common shareholder's equity (ROE) was 11.7% in 2016 versus 16.9% in 2015. Excluding the 2016 and 2015 specified items, the Bank's 2016 adjusted net income totalled $1,613 million, down 4% year over year, and its 2016 adjusted diluted earnings per share was $4.35, a decrease of 7% from $4.70 in 2015. In addition, adjusted ROE was 15.5% in 2016 versus 17.6% in 2015.

2016 Medium-Term Objectives and Results

	Medium-term objectives (%)	Results (%)
Growth in diluted earnings per share[1]	5-10	(7)
Return on common shareholders' equity[1]	15-20	15.5
Dividend payout ratio[1]	40-50	50
CET1 capital ratio	› 9.5	10.1
Leverage ratio	› 3.5	3.7

(1) Excluding specified items. See the Financial Reporting Method section on page 10.

In 2016, the Bank's financial results met all of the medium-term objectives, except for its diluted earnings per share growth target. Specifically, excluding specified items[1], adjusted diluted earnings per share decreased 7% year over year. Essentially, this target was not met given the sectoral provision for credit losses recorded for oil and gas producers and service companies in 2016.

(1) See the Financial Reporting Method section on page 10.

Dividends

For fiscal 2016, the Bank declared $736 million in dividends to common shareholders, representing 66% of net income attributable to common shareholders (2015: 45%). Excluding specified items, these dividends represented 50% of net income attributable to common shareholders (2015: 43%).

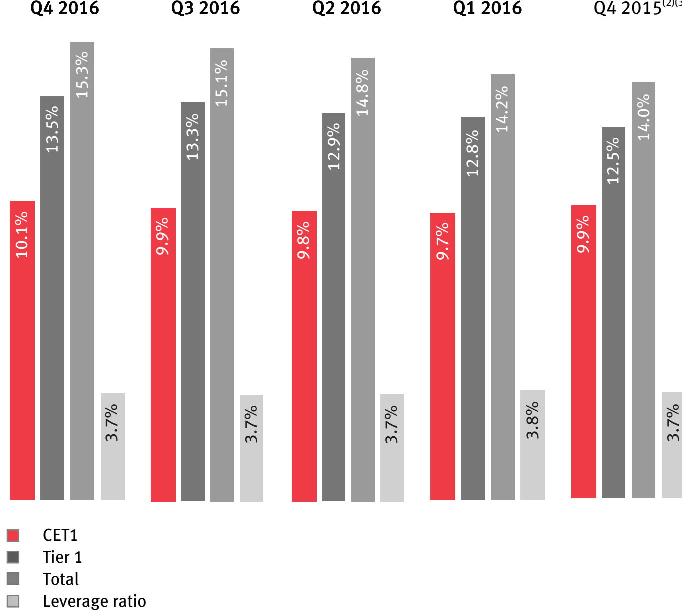
Annual Dividend[1]

(1) The figures for fiscal years 2014, 2013 and 2012 have been adjusted to reflect the stock dividend paid in 2014.

Regulatory Ratios

As at October 31, 2016, the Bank's CET1, Tier 1 and Total capital ratios were, respectively, 10.1%, 13.5% and 15.3%, i.e., above the regulatory requirements, compared to ratios of, respectively, 9.9%, 12.5% and 14.0% a year earlier. The increase in the CET1 capital ratio arises mainly from net income, net of dividends, and a decrease in risk-weighted assets. The increase in the Tier 1 and the Total capital ratios stems essentially from the above-mentioned factors and from issuances of Series 34 and 36 preferred shares for $800 million, partly offset by the Bank's redemption of the $225 million deposit note from NBC Capital Trust. Lastly, as at October 31, 2016, the leverage ratio stood at 3.7%, unchanged from October 31, 2015.

Evolution of Regulatory Ratios Under Basel III[1]



(1) The ratios are calculated using the "all-in" methodology.
(2) The Tier 1 capital ratio and the Total capital ratio include the redemption of the Series 20 preferred shares on November 15, 2015.
(3) The Total capital ratio includes the $500 million redemption of medium-term notes on November 2, 2015.

High Quality Loan Portfolio

For fiscal 2016, the Bank recorded $484 million in provisions for credit losses, $256 million more than in fiscal 2015, essentially because of the $250 million sectoral provision for credit losses recorded in 2016 for producers and service companies in the oil and gas sector. Also contributing to the increase were the 2016 provisions for credit losses on commercial loans, which, at $73 million, rose $10 million year over year, whereas the provisions for credit losses on personal loans were down $10 million, mainly due to consumer loans. In the Financial Markets segment, there were higher provisions for credit losses as a result of loans by the Credigy Ltd. subsidiary. The 2016 provisions for credit losses on impaired loans represented 0.19% of average loans and acceptances, a decrease from 2015, whereas the 2016 provisions for credit losses on impaired and non-impaired loans represented 0.40% of average loans and acceptances, a year-over-year increase resulting from the sectoral provision. In addition, impaired loans, net of total allowances, were down $177 million from 2015 due to the sectoral provision recorded during the year and to an increase in impaired loans in the commercial loan portfolio, partly offset by a decline in impaired loans in the personal loan portfolio.

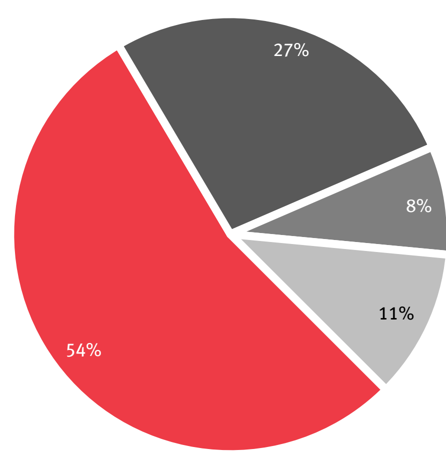
Risk Profile

(millions of Canadian dollars)	2016	2015
Provisions for credit losses[1]	**484**	228
Provisions for credit losses on impaired loans as a % of average loans and acceptances	**0.19 %**	0.21 %
Net impaired loans	**281**	254
Gross impaired loans as a % of tangible equity	**6.3 %**	5.9 %
Individual and collective allowances as a % of impaired loans	**42.9 %**	44.4 %
Sectoral allowance on non-impaired loans – Oil and gas	**204**	–
Collective allowance on non-impaired loans	**366**	366
Impaired loans, net of total allowances	**(289)**	(112)

(1) For the year ended October 31, 2016, the provisions for credit losses included a $250 million sectoral provision on non-impaired loans recorded for the oil and gas producer and service company loan portfolio.

Breakdown of the Average Loan and Acceptance Portfolio[1]

As at October 31, 2016



- Personal (2015: 55%)
- Commercial (2015: 28%)
- Wealth Management (2015: 8%)
- Corporate (2015: 9%)

(1) Excluding loans and acceptances in the *Other* heading.

Business Loans and Acceptances by Borrower Category

As at October 31	2016	2015
	%	%
Agriculture	**8.5**	9.2
Oil and gas	**3.9**	6.6
Mining	**1.1**	0.8
Construction and real estate	**19.8**	21.7
Manufacturing	**6.6**	7.8
Wholesale and retail	**9.1**	10.1
Transportation	**5.6**	4.1
Telecommunications, media and technology	**2.9**	2.6
Financial institutions	**7.1**	5.6
Services	**11.1**	11.2
Governments and other related services	**10.4**	9.2
Other	**13.9**	11.1

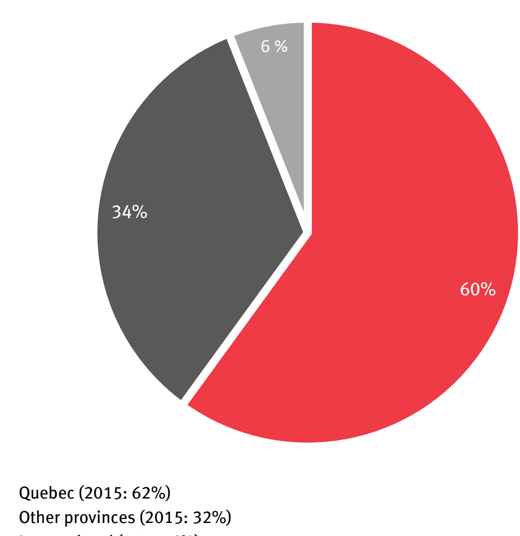
Outlook for National Bank

An essential component of the Bank's strategy is to maintain a diversified business mix by supporting the growth of its three reporting segments—Personal and Commercial, Wealth Management and Financial Markets. Through acquisitions, strategic partnerships and organic growth, the Bank's Wealth Management and Financial Markets segments have expanded through the years and now generate more than half of its total revenues and net income. Personal and Commercial Banking, the Bank's largest segment, continues to deliver steady revenue and earnings growth.

While emphasizing growth in its three main business segments, the Bank is also determined to expand its presence geographically across Canada while continuing to sustain its strong position in Quebec. The Financial Markets segment is well-positioned nationally and derives most of its revenues outside Quebec. The Wealth Management segment has established a national presence through its investment advisor channel, business relationships with independent advisors, and partnerships, resulting in a wide distribution reach and consistent revenue growth outside Quebec. The Personal and Commercial segment is largely Quebec-based but has a strong presence in select markets across Canada.

Complementing its core Canadian operations, the Bank has developed international business in specialty consumer finance through its Credigy Ltd. subsidiary and has focused investments in selected emerging markets. The Bank's objective is to derive more than 10% of its net income from international operations by 2020.

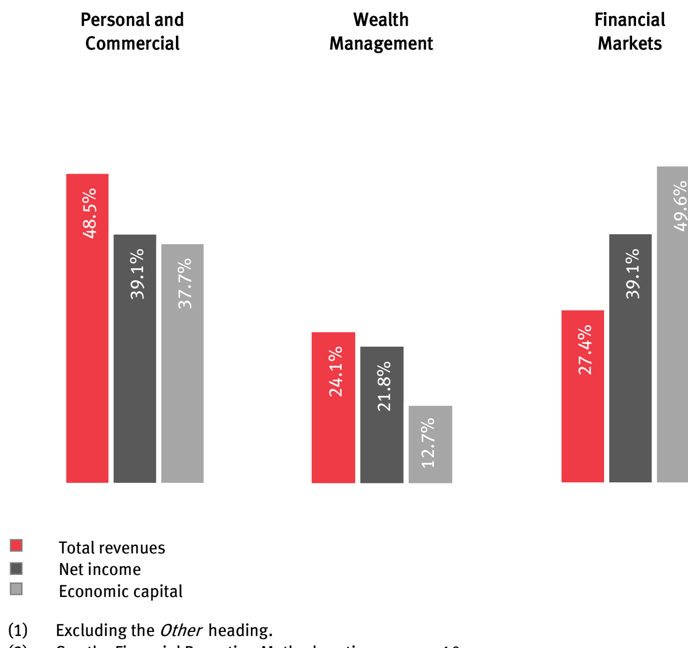
Geographic Distribution of Total Revenues
Year ended October 31, 2016
(taxable equivalent basis)[1]



- Quebec (2015: 62%)
- Other provinces (2015: 32%)
- International (2015: 6%)

(1) See the Financial Reporting Method section on page 10.

Business Mix[1]
Year ended October 31, 2016
(taxable equivalent basis)[2]



- Total revenues
- Net income
- Economic capital

(1) Excluding the *Other* heading.
(2) See the Financial Reporting Method section on page 10.

Major Economic Trends

Global Economy

The global economy seems to be stabilizing. The advanced markets are getting a boost from the U.S. rebound, while emerging markets are welcoming China's fiscal stimulus, which is already starting to have a positive impact on growth. The developing economies will again remain the principal motor of global activity next year. The Bank sees world GDP expanding 3.3% in 2017 (3.0% in 2016) and the global workforce reaching a record 3.3 billion workers.

But major geopolitical uncertainties persist. The rise of trade protectionism is particularly concerning as we head into 2017.

United States

After a difficult first half of 2016, the U.S. economy is bouncing back nicely. The improving global backdrop has helped boost trade while consumption spending, the driving force of the domestic economy, remains well supported by a healthy labour market (more than 2.4 million full-time jobs created in the past year) and cheap credit. The economy should expand 2.0% in 2017 (up from 1.6% in 2016), buoyed by the president-elect's commitment for large-scale fiscal stimulus in the form of infrastructure spending.

The Federal Reserve is expected to raise its policy rate for only the second time in a year in December. Monetary policy should nonetheless continue to be very accommodating through 2017.

Canada

Canada should record a GDP growth rate of approximately 1.8% in 2017, up from 1.2% in 2016. The Bank expects growth to pick up thanks in part to fiscal stimulus and relatively good labour markets in the three most populous provinces (Ontario, Quebec, British Columbia) where employment is either at or near a record. With oil prices hovering near US$50, Alberta is expected to expand 1.4% in 2017 following two years of contraction. Though tighter standards for mortgage originations will take steam out of the housing market—particularly in the Vancouver and Toronto regions—a protracted period of home-price deflation is unlikely as demographic trends remain favourable for housing demand in Canada's main metropolitan areas.

In Quebec, the economy appears to be at full employment with the jobless rate at a generation low of 6.8% and the employment-to-population ratio at a record high of 74% for people aged 15-64. Domestic demand remains the engine of growth for the province but the improving economic outlook south of the border and in other provinces should provide a boost to exports in 2017. Quebec's economy is slated to grow by 1.4% in 2017.

FINANCIAL ANALYSIS

Consolidated Results

Year ended October 31 (millions of Canadian dollars)	2016	2015	2014	2016-15 % change
Operating results				
Net interest income[1]	2,956	2,682	2,584	10
Non-interest income[1]	2,884	3,064	2,880	(6)
Total revenues	5,840	5,746	5,464	2
Non-interest expenses	3,875	3,665	3,423	6
Contribution	1,965	2,081	2,041	(6)
Provisions for credit losses	484	228	208	
Income before income taxes	1,481	1,853	1,833	(20)
Income taxes	225	234	295	(4)
Net income	1,256	1,619	1,538	(22)
Diluted earnings per share *(dollars)*	3.29	4.51	4.32	(27)
Taxable equivalent[2]				
Net interest income	231	311	219	
Non-interest income	4	–	–	
Income taxes	235	311	219	
Net income	–	–	–	
Specified items[2][3]				
Items related to holding restructured notes	(9)	70	74	
Acquisition-related items	(53)	(34)	(60)	
Restructuring charge	(131)	(86)	–	
Impairment losses on intangible assets	(44)	(46)	(62)	
Litigation charges	(25)	–	(14)	
Write-off of an equity interest in an associate	(164)	–	–	
Gain on disposal of Fiera Capital shares	–	29	–	
Share of current tax asset write-down of an associate	–	(18)	–	
Funding valuation adjustment	–	–	(13)	
Specified items before income taxes	(426)	(85)	(75)	
Income taxes on specified items[4]	(69)	(22)	(20)	
Specified items after income taxes	(357)	(63)	(55)	
Operating results on a taxable equivalent basis and excluding specified items[2]				
Net interest income	3,196	3,013	2,821	6
Non-interest income	3,083	2,969	2,817	4
Total revenues	6,279	5,982	5,638	5
Non-interest expenses	3,653	3,505	3,303	4
Contribution	2,626	2,477	2,335	6
Provisions for credit losses	484	228	208	
Income before income taxes	2,142	2,249	2,127	(5)
Income taxes	529	567	534	(7)
Net income	1,613	1,682	1,593	(4)
Diluted earnings per share[3] *(dollars)*	4.35	4.70	4.48	(7)
Average assets	235,913	222,929	206,680	6
Average loans and acceptances	121,013	108,740	99,548	11
Impaired loans, net of total allowances	(289)	(112)	(118)	
Average deposits	140,885	128,016	115,604	10
Efficiency ratio excluding specified items[2]	58.2 %	58.6 %	58.6 %	

(1) On November 1, 2015, the Bank reclassified certain amounts in the Consolidated Statement of Income to better reflect the nature of the income reported in the Personal and Commercial segment. As a result, for the year ended October 31, 2015, an amount of $39 million presented in the *Non-interest income – Credit fees* item was reclassified to *Net interest income* (2014: $40 million). This reclassification had no impact on *Net income*.

(2) See the Financial Reporting Method section on page 10.

(3) For the year ended October 31, 2016, the specified items included a premium of $3 million, or $0.01 per share, on the redemption of the Series 20 preferred shares for cancellation.

(4) For the year ended October 31, 2016, the income taxes on specified items included an $18 million tax provision recorded to reflect the impact of substantively enacted changes to tax measures.

Analysis of Consolidated Results

Financial Results

For fiscal 2016, the Bank's net income totalled $1,256 million, down 22% from $1,619 million in fiscal 2015. The specified items, net of income taxes, reduced the 2016 net income by $357 million compared to a $63 million net income reduction from specified items in 2015. The 2016 specified items included, in particular, a $145 million, net of income taxes, write-off of the Bank's equity interest in associate Maple as well as a $96 million, net of income taxes, restructuring charge. Excluding the specified items, the 2016 adjusted net income totalled $1,613 million versus $1,682 million in 2015, a 4% decrease stemming essentially from the $250 million ($183 million net of income taxes) sectoral provision for credit losses recorded in 2016 for the oil and gas producer and service company loan portfolio. This decrease was partly offset by net income growth, before provisions for credit losses and income taxes, achieved in each business segment.

Total Revenues

On a taxable equivalent basis[(1)], the Bank's fiscal 2016 total revenues amounted to $6,075 million, up $18 million from fiscal 2015 (Table 2, page 92). The higher total revenues were essentially driven by growth in net interest income, which more than offset a decline in non-interest income. Excluding both the 2016 and 2015 specified items, the 2016 total revenues on a taxable equivalent basis increased by $297 million or 5% year over year. The 2016 and 2015 specified items both included items related to holding restructured notes as well as acquisition-related items, in particular the Bank's share in the goodwill and intangible asset impairment losses recorded in 2016 arising from its equity interest in TMX. The 2016 specified items also included the Bank's write-off of its equity interest in associate Maple, whereas the 2015 specified items had included a gain on the disposal of Fiera Capital shares and the Bank's share in the current tax asset write-down of an associate.

Net Interest Income

For fiscal 2016, net interest income on a taxable equivalent basis totalled $3,187 million, rising $194 million from $2,993 million in fiscal 2015 (Table 3, page 92). In the Personal and Commercial segment, the 2016 net interest income totalled $1,919 million, rising $94 million or 5% year over year. Average loan and deposit volumes experienced sound growth compared to 2015, rising 5% and 9%, respectively, with the loan growth being driven essentially by residential mortgages and home equity lines of credit. Both the loan and deposit growth, however, were tempered by a net interest margin that narrowed to 2.23% in 2016 from 2.24% in 2015, mainly due to lower deposit margins. In the Wealth Management segment, the 2016 net interest income totalled $372 million, rising $49 million year over year due to volume growth and to improved margins attributable to the CashPerformer account. As for the Financial Markets segment, the 2016 net interest income decreased $16 million year over year, mainly due to trading activities, and should be examined together with the other items of trading activity revenues. In the *Other* heading of segment results, net interest income was up year over year, particularly due to Treasury activities and to the revenues generated by the Advanced Bank of Asia Limited (ABA) subsidiary, the acquisition of which was completed during fiscal 2016.

Non-Interest Income

On a taxable equivalent basis, the Bank's fiscal 2016 non-interest income totalled $2,888 million versus $3,064 million in fiscal 2015 (Table 4, page 93). The trading revenues recorded in non-interest income amounted to $154 million compared to $209 million in 2015. Including the portion recorded in net interest income, trading activity revenues amounted to $897 million in 2016, down $88 million year over year (Table 5, page 93) due to decreases in revenues from equities, from commodities and foreign exchange, and from the other segments, while revenues from fixed-income securities increased.

As shown in Table 4 on page 93, the 2016 underwriting and advisory fees were down $11 million year over year, with the 2016 securities brokerage commissions also decreasing 14% year over year given a migration of assets from transactional accounts to fee-based accounts. Mutual fund revenues and trust service revenues totalled $817 million, rising $51 million upon growth in fee-based revenues and in assets under administration.

For fiscal 2016, revenues from credit fees remained relatively stable compared to fiscal 2015. Year over year, card revenues were down $9 million, while revenues from acceptances and letters of credit and guarantee were up $13 million, mainly due to more robust credit activity with corporate clients. Despite an increase in net gains on available-for-sale securities recorded by Financial Markets, net gains on available-for-sale securities were down $12 million, mainly because a $37 million gain had been recorded in 2015 upon the disposal of restructured notes of the MAV III conduits.

Revenues from deposit and payment service charges and insurance revenues were up 8% and 7%, respectively, from 2015. The share in the net income of associates and joint ventures decreased following the discontinuation of associate Maple's activities and the acquisition of the ABA subsidiary on May 17, 2016, the date as of which ABA's results were consolidated. At $267 million, other revenues were down $123 million, particularly due to the $164 million write-off of the equity interest in associate Maple, which more than offset the $108 million revenue increase at Credigy Ltd. and the $41 million non-taxable gain recorded following a revaluation of the previously held equity interest in ABA. Furthermore, in 2015 other revenues had included gains on investments and a $34 million gain on the disposal of Fiera Capital shares.

(1) See the Financial Reporting Method section on page 10.

Provisions for Credit Losses

For fiscal 2016, the Bank recorded $484 million in provisions for credit losses (Table 6, page 94), $256 million more than in fiscal 2015, essentially because of the $250 million sectoral provision for credit losses recorded in 2016 for producers and service companies in the oil and gas sector. Also contributing to the increase were the 2016 provisions for credit losses on commercial loans, which, at $73 million, rose $10 million year over year, whereas the provisions for credit losses on personal loans were down $10 million, mainly due to consumer loans. In the Financial Markets segment, there were higher provisions for credit losses as a result of loans by the Credigy Ltd. subsidiary. For 2016, provisions for credit losses on impaired loans represented 0.19% of average loans and acceptances, a decrease from 2015, whereas the 2016 provisions for credit losses on impaired and non-impaired loans represented 0.40% of average loans and acceptances, a year-over-year increase resulting from the sectoral provision.

Non-Interest Expenses

Non-interest expenses stood at $3,875 million in 2016 (Table 7, page 95), a $210 million year-over-year increase that was partly attributable to a $131 million restructuring charge recorded in 2016, which was higher than the $86 million restructuring charge of 2015. The 2016 restructuring charge consisted primarily of severance pay, whereas the 2015 charge had also included professional fees and occupancy expenses. Also in 2016, the Bank recorded $25 million in litigation charges (2015: nil) related to resolving litigation and other disputes arising from claims, ongoing or potential, made against the Bank. Excluding the 2016 and 2015 specified items, the 2016 adjusted non-interest expenses increased by $148 million or 4% year over year.

At $2,161 million in 2016, compensation and employee benefits remained stable year over year. The technology expense, including amortization, increased given intensified investment activity in recent years. Professional fees stood at $276 million in 2016, a $43 million increase resulting from business development expenses and the management fees associated with business growth at Credigy Ltd. The security and theft expense was up given the $25 million in litigation charges recorded in 2016. Furthermore, a portion of the increase in the overall non-interest expenses was attributable to the acquisition of ABA.

Income Taxes

Detailed information about the Bank's income taxes is provided in Note 25 to the consolidated financial statements. For fiscal 2016, income taxes stood at $225 million, for an effective tax rate of 15%, compared to $234 million and an effective tax rate of 13% in 2015. The change in the effective tax rate came mainly from a tax provision recorded in fiscal 2016 to reflect the impact of substantively enacted changes to tax measures, from a year-over-year decrease in tax-exempt dividend income, and from the gain on the disposal of Fiera Capital shares recorded in 2015.

BUSINESS SEGMENT ANALYSIS | Personal and Commercial

OVERVIEW

The Personal and Commercial segment meets the financial needs of some 2.3 million consumers and approximately 136,000 businesses across Canada. These clients entrust the Bank to manage, invest and safeguard their assets and finance their projects. Personal Banking offers everyday transaction solutions, mortgage loans and home equity lines of credit, consumer loans, payment solutions, savings options and tailored investment solutions, as well as a diverse range of insurance products through specialized subsidiaries. Commercial Banking offers a full line of services, including credit, deposit and investment solutions, international trade, foreign exchange transactions, payroll, cash management, insurance, electronic transactions and complementary services. To obtain advice and service, clients turn to the Bank's experienced advisors who take the time to understand their specific needs and help them reach their financial goals. And thanks to the Bank's convenient self-banking channels, 450 branches and 938 banking machines across Canada, clients can do their daily banking whenever and wherever they wish.

Economic and Market Review

The Canadian economy was a study in contrasts in 2016, marked particularly by a slowdown in the oil sector and the Alberta forest fires. However, the recovery of petroleum production, budget stimulation measures and renewed confidence among businesses suggest that growth should be stronger in 2017. For individuals, tighter mortgage requirements will limit growth in activity, but businesses could play a more active role through investments and new hiring.

2016 Achievements and Highlights

- Launched the Hello Canada service, which offers assistance to participants in the Newcomers Program while they are still in their home countries or already in Canada.
- Opened five new branches featuring design layouts that enhance client experience while showcasing the Bank's distribution channels and proactive approach to advice.
- Deployed a new customer relationship management platform for all Personal Banking advisors and call centre personnel to enhance client service in every customer interaction.
- Updated the transactional systems to be compatible with the various mobile payment solutions now available or soon to arrive on the market.
- Offered to clients of the Bank:
  - remote cheque deposit services through a smartphone app;
  - biometric identification through an iPhone feature that lets users of the Bank's app access their banking information through touch pressure alone;
  - the National Bank MasterPass digital wallet service, which makes online transactions safe and easy.
- Increased the proficiency and expertise of the Personal and Commercial segment's sales force through an internal national certification program. Over time, all of the 3,500 personnel who provide advice to retail and business clients will achieve this certification and be required to maintain it through continuing training.
- Automated and simplified the mortgage renewal, renegotiation and related customer services processes and digitized every servicing transaction related to mortgages.
- Enhanced the Commercial Banking product and service offering to provide customers with innovative technology platforms and simple and effective services, regardless of the channel they use. For example, the Bank launched the Start-up Package to support entrepreneurs. This package includes advantageous banking services, customized financing solutions and access to an array of resources and advice.

Priorities and Outlook for 2017

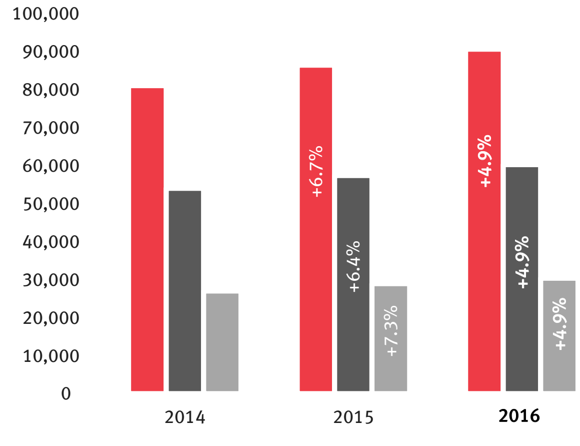
- The managers and customer-facing employees in the Personal and Commercial segment will continue the certification process; in addition, employees of the remote and mobile sales force will also participate in this distinctive program designed to further refine professional skills.
- An innovative customer relationship management platform will make it easier for the sales force to be proactive with and accessible to customers. Similarly, new digital solutions will be deployed, including automated banking machines that offer an enhanced user experience, an option to communicate with employees in click-to-chat mode, and mobile payment solutions.
- To better meet the evolving needs of companies, the product and service offering, particularly with respect to deposits and cash management, will be further improved. Simple and modern digital solutions, including a mobile application, will also be implemented.
- Lastly, to maximize the time devoted to advising our various clientele, a series of initiatives will be deployed to raise productivity, including a simplification and centralization of branch, call centre and commercial banking activities.

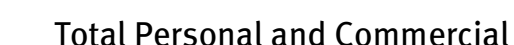
Segment Results – Personal and Commercial

Year ended October 31 (millions of Canadian dollars)	2016	2015[1]	2014[1]	2016-15 % change
Net interest income	1,919	1,825	1,739	5
Non-interest income	982	1,002	954	(2)
Total revenues	2,901	2,827	2,693	3
Non-interest expenses	1,640	1,630	1,548	1
Contribution	1,261	1,197	1,145	5
Provisions for credit losses[2]	475	225	205	
Income before income taxes	786	972	940	(19)
Income taxes	212	261	254	(19)
Net income	574	711	686	(19)
Net income excluding sectoral provision[2]	757	711	686	6
Net interest margin[3]	2.23 %	2.24 %	2.29 %	
Average interest-bearing assets	85,987	81,339	75,963	6
Average assets	91,067	86,886	81,516	5
Average loans and acceptances	90,718	86,493	81,129	5
Net impaired loans	275	249	246	10
Net impaired loans as a % of average loans and acceptances	0.3 %	0.3 %	0.3 %	
Average deposits	48,436	44,585	43,022	9
Efficiency ratio	56.5 %	57.7 %	57.5 %	

(1) For the years ended October 31, 2015 and 2014, certain amounts have been revised from those previously reported, including a reclassification between *Non-interest income – Credit fees* and *Net interest income* to better reflect the nature of the segment's income. In addition, the restructuring charge recognized in fiscal 2015, which had been allocated among all the Bank's business segments, has been combined into the *Other* heading to reflect the presentation adopted in fiscal 2016.
(2) For the year ended October 31, 2016, the provisions for credit losses included a $250 million sectoral provision ($183 million net of income taxes) on non-impaired loans recorded for the oil and gas producer and service company loan portfolio. Given the materiality of this sectoral provision, recorded in accordance with IFRS, net income excluding sectoral provision has been presented to provide a better assessment of the segment's results. See the Financial Reporting Method on page 10.
(3) Net interest margin is calculated by dividing net interest income by average interest-bearing assets.

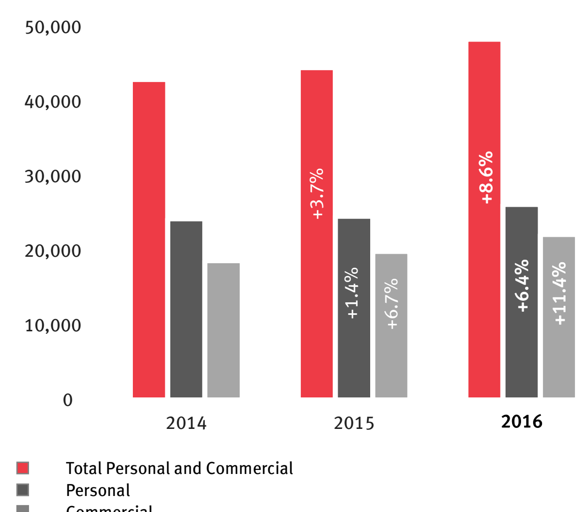
Loan and Acceptance Volumes
(millions of Canadian dollars)
(% of year-over-year growth)





Total Personal and Commercial
Personal
Commercial

Deposit Volumes
(millions of Canadian dollars)
(% of year-over-year growth)



Total Personal and Commercial
Personal
Commercial

Financial Results

In the Personal and Commercial segment, net income totalled $574 million in fiscal 2016 compared to $711 million in fiscal 2015, a 19% year-over-year decrease caused mainly by the sectoral provision of $250 million ($183 million, net of income taxes) on non-impaired loans recorded for the oil and gas producer and service company loan portfolio in the second quarter of 2016. Excluding this sectoral provision, the segment's adjusted net income totalled $757 million, up 6% year over year. The segment's 2016 total revenues were up $74 million, or 3%, year over year, essentially from growth in net interest income, which rose $94 million, as non-interest income decreased by $20 million. The higher net interest income was driven mainly by growth in personal and commercial loan and deposit volume, tempered by a lower net interest margin, which narrowed to 2.23% in 2016 from 2.24% in 2015 and 2.29% in 2014, mainly because of a decrease in deposit margins. The decrease in non-interest income came essentially from decreases in card revenues and in revenues from foreign exchange activities and derivative financial instruments.

The segment's fiscal 2016 non-interest expenses stood at $1,640 million, a 1% year-over-year increase that stems mainly from higher credit-card-related expenses and operations support charges, partly offset by lower compensation and employee benefits. The segment's 2016 contribution therefore increased 5% year over year. At 56.5%, the 2016 efficiency ratio improved from 57.7% in 2015 and from 57.5% in 2014.

The segment recorded $475 million in provisions for credit losses compared to $225 million in 2015, a $250 million increase resulting from the sectoral provision recorded in 2016.

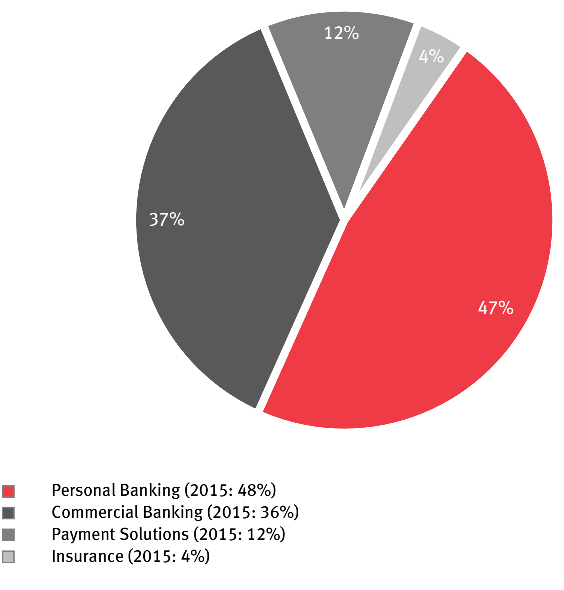
Personal Banking

For fiscal 2016, Personal Banking's revenues amounted to $1,840 million compared to $1,788 million in 2015, a 3% increase driven mainly by a 5% increase in loan volume (primarily mortgage credit and the credit card balance outstanding) and a 6% increase in deposit volume, tempered by a narrowing of the net interest margin. Growth in non-interest income of $2 million came essentially from revenues from deposit and payment service charges and was partly offset by a decline in card revenues. In addition, revenues from insurance activities increased year over year. Non-interest expense rose $7 million in 2016, mainly due to higher credit card expenses and operations support charges, partly offset by a decrease in compensation and employee benefits.

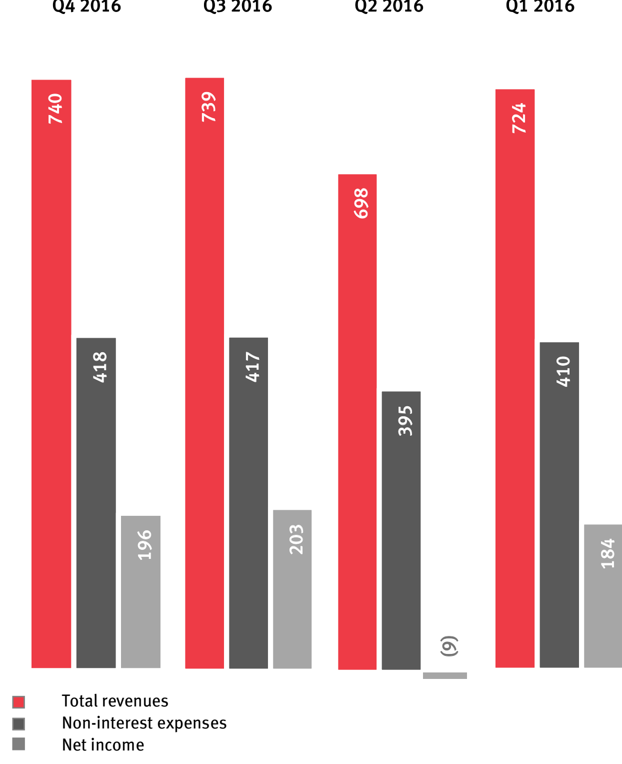
Commercial Banking

For fiscal 2016, Commercial Banking's revenues amounted to $1,061 million, rising 2% from $1,039 million in 2015. An increase in net interest income was essentially driven by growth in loan and deposit volumes of 5% and 11%, respectively, tempered by smaller margins. Non-interest income was down $22 million, due to decreases in revenues from credit fees, foreign exchange activities and derivative financial instruments. As for non-interest expenses, they increased $3 million, mainly due to compensation and employee benefits and to operations support charges.

Total Revenues by Category
Year ended October 31, 2016



Quarterly Results
(millions of Canadian dollars)



BUSINESS SEGMENT ANALYSIS | Wealth Management

OVERVIEW

The Wealth Management segment believes that the strength of client relationships is—and will remain—the key factor in its success. Therefore, this segment focuses on hiring and retaining advisors and support staff with a passion for delivering outstanding client experience and providing them with category-leading products and services.

Wealth Management leverages internal and third-party distribution channels as well as its product manufacturers to maintain leadership in Quebec and to continue growing its market share across Canada. The segment is differentiated by its unique business model and a culture that features a high degree of professionalism.

Economic and Market Review

Despite growth during the year, world equity markets remained hesitant given concerns about recession and political events, including the Brexit and U.S. election. Divergent monetary policy views between the U.S.A. and Canada have also had a significant impact on the Canadian dollar, which was substantially weakened, and on trends in Canadian stock sectors, where defensive sectors performed better. In this context, net interest income and revenues from fee-based accounts outperformed transaction revenues, reflecting the market conditions and the demographic profile of the clientele.

2016 Achievements and Highlights

- Expanded services to high-net-worth individuals in Alberta and British Columbia. Having established a solid reputation serving affluent clients in Eastern Canada, the *Private Banking 1859* division increased its presence in Western Canada with the opening of new offices in Calgary and Vancouver.
- Embedded Personal Banking retail bankers into National Bank Financial offices in new locations. The Wealth Management segment now offers bank credit and transactional services directly to clients in National Bank Financial offices located in White Rock (BC), Calgary, Winnipeg, Vancouver, Quebec City, and Montreal, thereby deepening relationships and increasing internal efficiency.
- Introduced innovative investment solutions through an open architecture platform. Under a partnership with Rothschild Asset Management Inc., the Wealth Management segment filled a void in the Canadian market by launching Canadian and global equity funds based on a unique approach to smart beta investing.
- Facilitated client migration to fee-based services. The *my*WEALTH investment program, which provides personalized wealth management advice and negotiated fees adapted to client needs, reached $22 billion in assets under management in 2016.
- Recognized for excellence in customer experience. For the second year in a row, National Bank Direct Brokerage received the highest numerical score in the J.D. Power Canadian Self-Directed Investor Satisfaction Study in 2016.
- National Bank Correspondent Network (NBCN) is Canada's leading provider of custody, trade execution and brokerage solutions to independent portfolio managers and investment dealers. Today, NBCN serves over 400 independent firms, and its assets under administration surpassed $115 billion.

Priorities and Outlook for 2017

- Strengthen the three distribution channels (National Bank Financial Wealth Management, *Private Banking 1859* and National Bank Direct Brokerage) through targeted initiatives that further align its products and services with client needs.
- Leverage its open architecture model to launch new investment solutions that are relevant to individual investors by partnering with the world's best-performing investment management firms.
- Grow NBCN's presence with independent investment advisors and portfolio management firms by providing efficient clearing and back-office services through a single platform, thereby supporting their performance and helping them to maintain compliance with mounting regulatory requirements.
- Support business growth outside Quebec by embedding Personal Banking retail bankers in additional National Bank Financial offices and in the offices of financial partners who already offer the Bank's retail banking services to their clients on a white-label basis.
- Ensure full compliance with new regulatory requirements regarding client disclosure at points of sale regarding fees, other forms of compensation and investment performance.

Segment Results – Wealth Management

Year ended October 31 (millions of Canadian dollars)	2016	2015[1]	2014[1]	2016-15 % change
Net interest income	372	323	312	15
Fee-based revenues	802	761	664	5
Transaction and other revenues	266	335	347	(21)
Total revenues	1,440	1,419	1,323	1
Non-interest expenses	998	983	953	2
Contribution	442	436	370	1
Provisions for credit losses	5	3	3	
Income before income taxes	437	433	367	1
Income taxes	116	110	95	5
Net income	321	323	272	(1)
Specified items after income taxes[2]	26	(1)	38	
Net income excluding specified items[2]	347	322	310	8
Average assets	11,006	10,388	10,400	6
Average loans and acceptances	9,379	8,772	8,287	7
Net impaired loans	5	5	2	
Average deposits	27,859	24,494	24,250	14
Efficiency ratio excluding specified items[2]	67.3 %	68.6 %	68.3 %	

(1) For the years ended October 31, 2015 and 2014, certain amounts have been revised from those previously reported. In addition, the restructuring charge recognized in fiscal 2015, which had been allocated among all the Bank's business segments, has been combined into the *Other* heading to reflect the presentation adopted in fiscal 2016.
(2) See the Financial Reporting Method section on page 10.

Assets Under Administration or Under Management – Wealth Management

As at October 31 (millions of Canadian dollars)	2016	2015	2014	2016-15 % change
Assets under administration	341,047	308,396	301,808	11
Assets under management				
Individual	28,463	23,960	24,586	19
Mutual funds	28,706	25,783	18,938	11
	57,169	49,743	43,524	15
Assets under administration and under management	398,216	358,139	345,332	11

Financial Results

In the Wealth Management segment, net income totalled $321 million for fiscal 2016, relatively stable compared to the $323 million recorded in fiscal 2015. The segment's 2016 contribution increased $6 million year over year, partly offset by an increase in provisions for credit losses and by income taxes, which were lower in 2015 given a gain on disposal of Fiera Capital shares. Excluding specified items, which include, net of income taxes, $26 million in charges related to the acquisitions of recent years (2015: $24 million) and a $25 million gain on the disposal of Fiera Capital shares recorded in 2015, Wealth Management's adjusted net income totalled $347 million, up $25 million or 8% from $322 million in 2015.

The segment's 2016 total revenues amounted to $1,440 million compared to $1,419 million in 2015, a $21 million increase that was mainly due to 15% growth in net interest income, driven by the CashPerformer account and brokerage accounts, as well as to growth in fee-based revenues, which rose 5% year over year given a migration of assets from transactional accounts to fee-based accounts. These increases more than offset a year-over-year decrease in transaction-based and other revenues, a decrease that was particularly due to the $34 million gain on the disposal of Fiera Capital shares recorded in 2015 and to lower brokerage commission revenues on share and bond transactions than in 2015.

Non-interest expenses stood at $998 million in 2016, up 2% from $983 million in 2015. This increase came mainly from the higher variable compensation and external management fees associated with the growth in the segment's business volume that led to higher revenues. In addition, the segment's technology development expenses and operations support charges increased over 2015. Excluding specified items, the segment's efficiency ratio was 67.3%, improving from 68.6% in 2015 and from 68.3% in 2014.

The 2016 provisions for credit losses stood at $5 million, up $2 million from 2015.

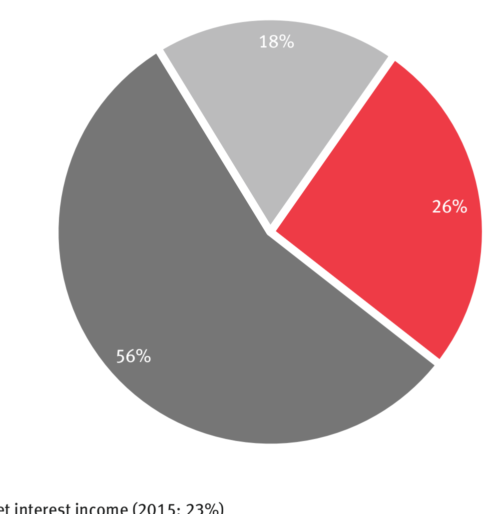
Assets Under Administration and Under Management

As at October 31, 2016, total assets under administration and under management amounted to $398.2 billion, up $40.1 billion or 11% from October 31, 2015 and up 15% from October 31, 2014.

Assets under administration amounted to $341.0 billion as at October 31, 2016, a $32.7 billion or 11% increase from October 31, 2015 that came essentially from net inflows to various solutions and from a stock market recovery. In the individuals category, assets under management amounted to $28.5 billion as at October 31, 2016 compared to $24.0 billion as at October 31, 2015.

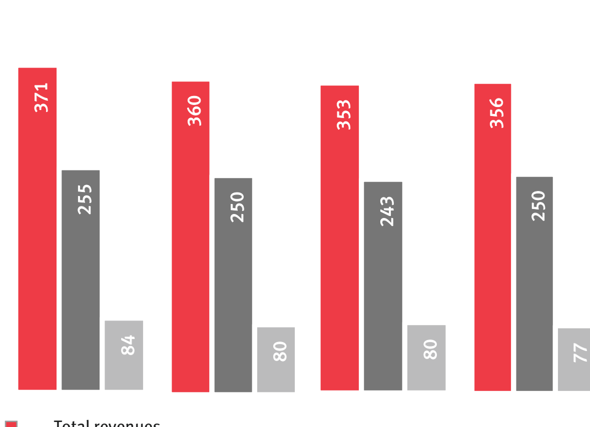
Mutual funds totalled $28.7 billion as at October 31, 2016, rising 11% from October 31, 2015 given excellent net inflows to the various distribution networks and a conversion of the Private Wealth Management solution into mutual funds.

Total Revenues by Category
Year ended October 31, 2016



Net interest income (2015: 23%)
Fee-based services (2015: 54%)
Transaction-based and other revenues (2015: 23%)

Quarterly Results
(millions of Canadian dollars)



Total revenues
Non-interest expenses
Net income

BUSINESS SEGMENT ANALYSIS | Financial Markets

OVERVIEW

The Financial Markets segment offers clients a full suite of financial solutions from debt and equity underwriting to bank credit and risk management products. This segment also delivers comprehensive advisory services in the areas of mergers and acquisitions and financing. Access to the Canadian capital markets is provided through its fixed income, equities and derivatives business lines. The segment's clients consist of large and mid-sized corporations, the public sector and institutions across Canada.

The Financial Markets segment is an investment banking leader in Quebec with a strong presence across Canada. In fixed income and equities, it is a market leader, providing origination, underwriting, distribution, and liquidity through secondary market activities as well as macroeconomic and issuer-focused research.

Through offices in New York, London (UK) and Hong Kong, this segment markets Canadian debt and equity securities to institutional investors in the United States and internationally. Through its Dublin subsidiary, this segment engages in trading activities with large European-based institutions in local equity and equity-linked securities.

Economic and Market Review

Fiscal 2016 was characterized by a weak Canadian economy, a high degree of market volatility, as well as sustained low prices for oil and many other commodities. This environment created opportunities in energy equity capital markets and M&A activities and resulted in increased demand for risk management solutions and structured products, as clients sought advice on how to best hedge their positions. In Canada, total equity issuances exceeded those of last year, and debt issuances also increased as higher government debt volume more than offset lower debt capital activity by corporations.

2016 Achievements and Highlights

- Financial Markets led or co-led significant major debt and equity financings in multiple industry sectors. Among major deals completed during the year, the Financial Markets segment led the $557 million debt financing for the Sea-to-Sky Highway Improvement Project in British Columbia and co-led a $1.25 billion debt offering by CPPIB Capital Inc. The Financial Markets segment advised Birchcliff Energy Ltd. in conjunction with its $625 million purchase of natural gas properties from Encana Corporation and co-led the related $530 million stock offering. It also co-led a $470 million equity issuance by Whitecap Resources Inc. and the US$109 million initial public offering of Mainstreet Health Investments Inc. The segment acted as financial advisor to Enercare Inc. on its US$341 million acquisition of SEHAC Holdings Corporation ("Service Experts") and co-led the related $240 million equity offering and US$200 million credit facility. The segment also co-led a $231 million equity offering, a $300 million debt offering and a new credit facility for Parkland Fuel Corporation to finance their acquisition of a majority of CST Brands Inc.'s Canadian business and assets.
- The Bank ranked first in Canada for debt underwriting, excluding self-funded deals, in the first nine months of 2016. The Bank raised a total of $16.5 billion during this period, leading the market in all debt raised.
- Financial Markets raised $2.2 billion through equity, equity-linked, and preferred share issuances and increased its combined market share compared to 2015.
- The segment capitalized on market conditions and external restructuring to further strengthen the research team, with upgrades in the technology, industrial products and energy sectors.
- The Bank expanded its market presence despite market volatility and decreased liquidity, ranking third in all debt domestic bond trading for the first half of 2016.
- The segment continued to leverage the derivatives trading and structuring expertise to reach a broader group of clients. Its innovative risk management solutions, which enable clients to manage risks across all asset classes, have grown to cover an additional 38% of its clients over the last five years, with the majority of them using multiple risk management products.
- Credigy Ltd., which operates exclusively outside Canada, achieved strong results, while continuing to increase the proportion of performing consumer debt in its book of assets. At year-end 2016, performing portfolios represented 93% of assets.

Priorities and Outlook for 2017

- Continue to focus on the *one client, one bank* strategy by further integrating client coverage across all business lines.
- Enhance the focus on larger corporate clients in Canada while strengthening its leadership position with mid-market clients.
- Grow market share in corporate debt, infrastructure and power finance in Canada, while maintaining leadership in government finance.
- Manage the balance sheet and capital for maximum efficiency.

Segment Results – Financial Markets

Year ended October 31 (taxable equivalent basis)[1] (millions of Canadian dollars)	2016	2015[2]	2014[2]	2016-15 % change
Trading activity revenues				
Equities	438	450	333	(3)
Fixed-income	263	237	218	11
Commodities and foreign exchange	116	147	83	(21)
	817	834	634	(2)
Financial market fees	288	286	301	1
Gains on available-for-sale securities, net	16	1	27	
Banking services	322	286	250	13
Credigy Ltd.	324	216	233	50
Other	(130)	79	69	
Total revenues	1,637	1,702	1,514	(4)
Non-interest expenses	796	743	690	7
Contribution	841	959	824	(12)
Provisions for credit losses	4	–	–	
Income before income taxes	837	959	824	(13)
Income taxes	262	261	222	–
Net income	575	698	602	(18)
Non-controlling interests	18	13	14	
Net income attributable to the Bank's shareholders	557	685	588	(19)
Specified items after income taxes[1]	145	16	9	
Net income excluding specified items[1]	720	714	611	1
Average assets	91,928	88,616	86,198	4
Average loans and acceptances (Corporate Banking only)	12,552	10,057	8,070	25
Average deposits	13,719	12,499	11,109	10
Efficiency ratio excluding specified items[1]	44.2 %	43.2 %	45.2 %	

(1) See the Financial Reporting Method section on page 10.
(2) For the years ended October 31, 2015 and 2014, certain amounts have been revised from those previously reported. In addition, the restructuring charge recognized in fiscal 2015, which had been allocated among all the Bank's business segments, has been combined into the *Other* heading to reflect the presentation adopted in fiscal 2016.

Financial Results

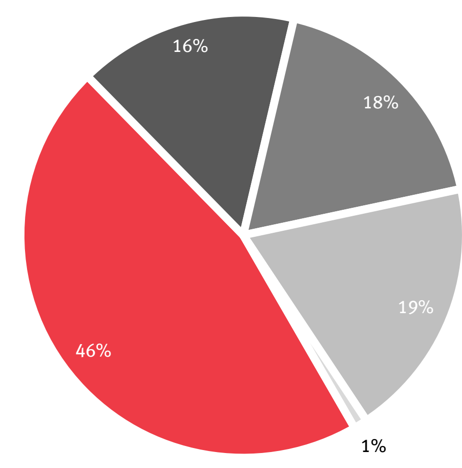
In the Financial Markets segment, net income totalled $575 million in fiscal 2016, down $123 million or 18% year over year. On a taxable equivalent basis, the segment's 2016 total revenues amounted to $1,637 million compared to $1,702 million in 2015, a $65 million year-over-year decrease that was mainly due to a decrease in the segment's other revenue category, which in 2016 included a $164 million write-off of the equity interest in associate Maple whereas in 2015 had included gains on investments. Due to market conditions, trading activity revenues were also down year over year, while revenues from financial market fees remained steady. The decrease in trading activity revenues came essentially from the equities category and the commodities and foreign exchange category, the revenues from which decreased by 3% and 21%, respectively, year over year. These decreases were partly offset by a $108 million increase in the revenues generated by the Credigy Ltd. subsidiary. Furthermore, banking service revenues rose 13%, and net gains on available-for-sale securities increased $15 million from fiscal 2015.

The segment's fiscal 2016 non-interest expenses increased year over year, mainly due to higher expenses related to the Credigy Ltd. subsidiary and operations support charges. These increases were partly offset by a decrease in variable compensation associated with the decline in revenue. Excluding specified items, the efficiency ratio was 44.2%, increasing by 1.0 percentage point when compared to 43.2% in 2015 and 45.2% in 2014.

The provisions for credit losses were $4 million higher than last year as a result of the provisions for credit losses recorded for the Credigy Ltd. subsidiary.

Excluding the write-off of the equity interest in associate Maple and the 2015 specified item of $16 million, net of income taxes, for the share in the current tax asset write-down of an associate, the segment's adjusted net income totalled $720 million for the year ended October 31, 2016, a 1% increase from fiscal 2015.

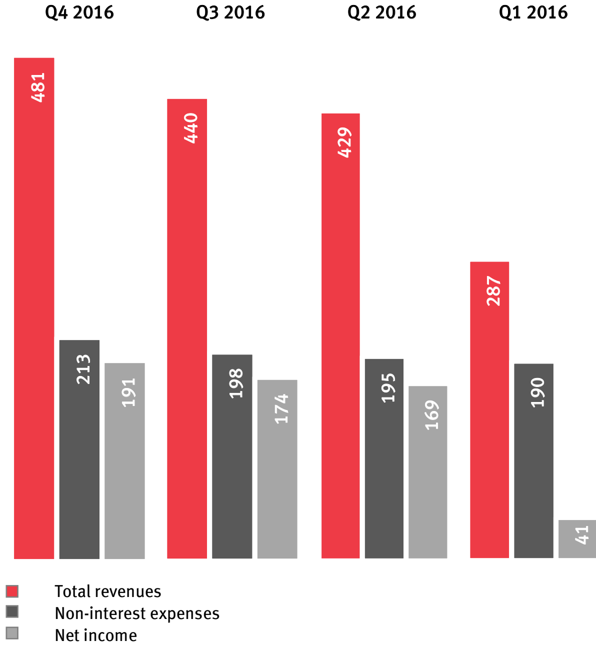
Total Revenues by Category[1]
Year ended October 31, 2016



- Trading activity revenues (2015: 51%)
- Financial market fees (2015: 18%)
- Banking services (2015: 18%)
- Credigy Ltd. (2015: 13%)
- Gains on available-for-sale securities (2015: 0%)

(1) Excluding revenues from other activities.

Quarterly Results
(taxable equivalent basis)[1]
(millions of Canadian dollars)



- Total revenues
- Non-interest expenses
- Net income

(1) See the Financial Reporting Method section on page 10.

BUSINESS SEGMENT ANALYSIS | Other

OVERVIEW

The *Other* heading reports on Treasury operations, including the Bank's asset and liability management, liquidity management and funding operations; certain non-recurring items; certain international activities (in particular, the ABA subsidiary) and the unallocated portion of corporate units. Corporate units include Information Technology, Transformation and Strategic Initiatives Office, Risk Management, Operations, Marketing and Corporate Development, Human Resources and Corporate Affairs, and Finance and Treasury. These units provide advice and guidance throughout the Bank and to its business segments in addition to expertise and support in their respective fields.

Segment Results – Other

Year ended October 31
(taxable equivalent basis)[1]
(millions of Canadian dollars)

	2016	2015[2]	2014[2]
Net interest income	**(84)**	(151)	(72)
Non-interest income	**181**	260	225
Total revenues	**97**	109	153
Non-interest expenses	**441**	309	232
Income before income taxes	**(344)**	(200)	(79)
Income taxes (recovery)	**(130)**	(87)	(57)
Net income	**(214)**	(113)	(22)
Non-controlling interests	**57**	57	55
Net income attributable to the Bank's shareholders	**(271)**	(170)	(77)
Specified items after income taxes[1]	**186**	48	8
Net income excluding specified items[1]	**(28)**	(65)	(14)
Average assets	**41,912**	37,039	28,566

(1) See the Financial Reporting Method section on page 10.
(2) For the years ended October 31, 2015 and 2014, certain amounts have been revised from those previously reported. In addition, the restructuring charge recognized in fiscal 2015, which had been allocated among all the Bank's business segments, has been combined into the *Other* heading to reflect the presentation adopted in fiscal 2016.

Financial Results

For the *Other* heading of segment results, there was a net loss of $214 million in fiscal 2016 compared to a net loss of $113 million in fiscal 2015. These losses were essentially due to the following specified items, net of income taxes: $6 million in financing costs related to holding restructured notes (2015: $16 million); a restructuring charge of $96 million (2015: $62 million); litigation charges of $18 million (2015: nil); intangible asset impairment losses of $32 million (2015: $33 million); the Bank's $16 million share (2015: $3 million) in the charges related to its equity interest in TMX, particularly goodwill and intangible asset impairment losses of $13 million recorded in 2016; and an $18 million tax provision (2015: nil) to reflect the impact of substantively enacted changes to tax measures. In addition, $39 million in revenues related to a rise in the fair value of restructured notes and a $27 million gain on the disposal of restructured notes of the MAV III conduits had been recorded in 2015.

Excluding the specified items, the adjusted net loss was $28 million for the year ended October 31, 2016 versus an adjusted net loss of $65 million in 2015. The lower adjusted net loss was mainly due to the contributions of international investments, particularly the ABA subsidiary, the acquisition of which was completed during the third quarter of 2016 and contributed $21 million to net income. Also as part of this acquisition, the Bank recorded a non-taxable gain of $41 million on the revaluation of its previously held equity interest in ABA. This growth was offset by an increase in non-interest expenses, particularly the expenses related to the ABA acquisition. Compensation and employee benefits and business development expenses also increased year over year.

QUARTERLY FINANCIAL INFORMATION

Several trends and factors have an impact on the Bank's quarterly net income, revenues, non-interest expenses and provisions for credit losses. The following table presents a summary of results for the past eight quarters. Furthermore, a summary of results for the past 12 quarters is provided in Table 1 on pages 90 and 91.

Quarterly Results Summary[1]

(millions of Canadian dollars)				2016				2015
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Statement of income data								
Net interest income	769	772	709	706	695	672	650	665
Non-interest income	800	785	716	583	710	838	771	745
Total revenues	1,569	1,557	1,425	1,289	1,405	1,510	1,421	1,410
Provisions for credit losses	59	45	317	63	61	56	57	54
Non-interest expenses	1,159	937	876	903	960	906	936	863
Income taxes	44	97	22	62	37	95	24	78
Net income	307	478	210	261	347	453	404	415

The analysis below of the past eight quarters reflects the sustained performance of all the business segments and helps readers identify the items that have favourably or unfavourably affected results. As a result of certain non-recurring items, in three of the four quarters of fiscal 2016, net income was down year over year. Conversely, for the third quarter of 2016 and every quarter of 2015, net income was up year over year.

- For the first quarter of 2016, the year-over-year decrease in net income was due to the $145 million write-off, net of income taxes, of the Bank's equity interest in associate Maple, whereas, in the first quarter of 2015, revenues related to the rise in the fair value of restructured notes had been recorded.
- For the second quarter of 2016, a sectoral provision for credit losses of $183 million, net of income taxes, was recorded for oil and gas producers and service companies, whereas, in the second quarter of 2015, net income had included revenues related to holding restructured notes as well as a gain on the disposal of Fiera Capital shares. These revenues had been offset by a loss recorded following a current tax asset write-down of an associate and by intangible asset impairment losses.
- During the fourth quarter of 2016, a restructuring charge of $96 million, net of income taxes, was recorded, whereas in the fourth quarter of 2015, a restructuring charge of $62 million, net of income taxes, had been recorded. These charges consisted essentially of severance pay.
- The 2016 fourth-quarter net income also included intangible asset impairment losses of $32 million, net of income taxes, and litigation charges of $18 million, net of income taxes.
- The net income growth in the third quarter of 2016 was driven by solid performance from the Personal and Commercial and Wealth Management segments and by a $41 million non-taxable gain realized upon a revaluation of the previously held equity interest in ABA.

(1) For additional information about the 2016 fourth quarter results, visit the Bank's website at nbc.ca or the SEDAR website at sedar.com to consult the Bank's *Press Release for the Fourth Quarter of 2016*, published on December 2, 2016.

As for net interest income, this item posted year-over-year growth in every quarter of 2016 and 2015 except the second quarter of 2015. The decrease in the Financial Markets segment's net interest income was more than offset by growth in personal and commercial loan and deposit volumes, net interest income growth in the Wealth Management segment, particularly due to higher volumes and margins related to the CashPerformer account, and the contribution from the ABA subsidiary as of the third quarter of 2016.

For three of the four quarters of 2016, non-interest income was down year over year, particularly because the equity interest in associate Maple was written off in the first quarter of 2016 and, in 2015, revenues related to holding restructured notes and a gain on the disposal of Fiera Capital shares had been recorded. However, the non-interest income in the fourth quarter of 2016 and in every quarter but the fourth of 2015 increased year over year owing to sustained growth by the business segments.

For most of the past eight quarters, provisions for credit losses increased given increases in personal and commercial loan volumes. In addition, a sectoral provision of $250 million was recorded in the second quarter of 2016.

Non-interest expenses were up for most of the past eight quarters, mainly as a result of salary increases (including variable compensation associated with growth in the segments' revenues), technology investments, and business development expenses. The increase in non-interest expenses was greater in the second quarter of 2015 compared with the same quarter of 2014 due to intangible asset impairment losses recorded in 2015. As for the fourth quarter of 2016, the year-over-year increase in non-interest expenses was essentially due to the recognition of a $131 million restructuring charge (versus an $86 million restructuring charge in 2015), intangible asset impairment losses, the acquisition of the ABA subsidiary and litigation charges.

The effective tax rate was up for most of the quarters of 2016, whereas the second and fourth quarters of 2015 had posted lower rates. The lower effective tax rate in the second quarter of 2015 came from higher tax-exempt dividend income and from the gain on the disposal of Fiera Capital shares recorded during that quarter, while the decrease in the fourth quarter of 2015 was due to adjustments to income tax provisions.

ANALYSIS OF THE CONSOLIDATED BALANCE SHEET

Consolidated Balance Sheet Summary

As at October 31 (millions of Canadian dollars)	2016	2015	% change
Assets			
Cash and deposits with financial institutions	**8,183**	7,567	**8**
Securities	**64,541**	56,040	**15**
Securities purchased under reverse repurchase agreements and securities borrowed	**13,948**	17,702	**(21)**
Loans and acceptances (net of allowances for credit losses)	**126,178**	115,238	**9**
Other	**19,356**	19,543	**(1)**
	232,206	216,090	**7**
Liabilities and equity			
Deposits	**139,907**	128,830	**9**
Other	**79,185**	74,383	**6**
Subordinated debt	**1,012**	1,522	**(34)**
Equity attributable to the Bank's shareholders	**11,292**	10,554	**7**
Non-controlling interests	**810**	801	**1**
	232,206	216,090	**7**

As at October 31, 2016, the Bank had total assets of $232.2 billion compared to $216.1 billion at year-end 2015, a 7% increase that was driven mainly by $11.0 billion in loan and acceptance growth.

Cash and Deposits With Financial Institutions

At $8.2 billion as at October 31, 2016, cash and deposits with financial institutions rose $0.6 billion since the same date last year, mainly due to the acquisition of the ABA subsidiary. The Bank's liquidity and funding risk management practices are described on pages 71 to 79 of this MD&A.

Securities

As at October 31, 2016, securities totalled $64.5 billion (28% of total assets), rising $8.5 billion from $56.0 billion as at October 31, 2015. Securities issued or guaranteed by the Canadian federal, provincial and municipal governments, both those at fair value through profit or loss and those available-for-sale, were down $2.3 billion, offset by a $3.2 billion increase in those types of securities that are held to maturity. Equity securities were up $3.4 billion, while securities issued and guaranteed by the U.S. Treasury, other U.S. agencies and other foreign governments were up $3.8 billion. Securities purchased under reverse repurchase agreements and securities borrowed totalled $13.9 billion as at October 31, 2016, a $3.8 billion decrease since year-end 2015 that is related to activities in the Financial Markets segment. The Bank's market risk management policies are described on pages 64 to 70 of this MD&A.

Master Asset Vehicles (MAV)

As at October 31, 2016, the carrying value of the restructured notes of the MAV conduits and of the other restructured notes held by the Bank was $619 million ($655 million as at October 31, 2015), of which $613 million was designated as *Securities at fair value through profit or loss* under the fair value option, and an amount of $6 million was classified in *Available-for- sale securities* ($642 million designated as *Securities at fair value through profit or loss* and $13 million classified in *Available-for-sale securities* as at October 31, 2015).

The notes held in an investment portfolio with one or more embedded derivatives were designated as *Securities at fair value through profit or loss* under the fair value option, and the other notes were classified in *Available-for-sale securities.*

During the year ended October 31, 2016, the credit rating of the MAV I Class B notes was upgraded from "A (sf)" to "A high (sf)." The credit ratings of the MAV I Class A-2 notes and MAV II Class A-1 notes remained unchanged at "AA low (sf)." The credit rating of the MAV II Class A-2 notes remained unchanged at "A (sf)."

Loans and Acceptances

As at October 31, 2016, loans and acceptances, net of allowances for credit losses, totalled $126.2 billion, up $11.0 billion or 9%, and accounted for 54% of total assets.

Residential mortgage loans outstanding totalled $48.9 billion as at October 31, 2016, rising $5.4 billion or 12% since year-end 2015 given a sustained demand for mortgage credit, the acquisition of the ABA subsidiary, and mortgages acquired for securitization purposes.

Personal loans and credit card receivables totalled $34.0 billion at year-end 2016 compared to $31.9 billion at year-end 2015, a $2.1 billion or 6% increase driven essentially by home equity lines of credit.

At $44.1 billion as at October 31, 2016, loans and acceptances to businesses and government increased 9% since year-end 2015. This increase came mainly from corporate loan financing and the activities of the Credigy Ltd. subsidiary. The customers' liability under acceptances decreased by $3.0 billion since last year.

Table 9 (page 97) shows gross loans and acceptances by borrower category as at October 31, 2016. At $58.3 billion, residential mortgages (including home equity lines of credit) have posted strong growth since 2012 and account for 46% of total loans and acceptances. This growth was driven by sustained demand for mortgage credit, the acquisition of the ABA subsidiary, and mortgages purchased for securitization purposes. As at October 31, 2016, retail loans amounted to $14.5 billion and, with respect to commercial loans, there was growth mainly in the financial institutions category, the transportation category and the services category from year-end 2015. The oil and gas category was down $1.1 billion compared to last year.

Impaired Loans

Gross impaired loans totalled $492 million as at October 31, 2016 versus $457 million as at October 31, 2015 (Table 10, page 98). The increase came mainly from the commercial loan portfolio and was partly offset by a decrease in impaired loans in the personal loan portfolio. Impaired loans represented 6.3% of the tangible capital adjusted for allowances compared to 5.9% as at October 31, 2015. Impaired loans, net of individual and collective allowances, increased $27 million from a year ago, as a result of the increase in impaired commercial loans.

A detailed description of the Bank's credit risk management practices is provided on pages 56 to 63 of this MD&A as well as in Note 7 to the consolidated financial statements.

Other Assets

As at October 31, 2016, other assets totalled $19.4 billion compared to $19.5 billion as at October 31, 2015. Other asset items consist of derivative financial instruments, amounts due from clients, dealers and brokers, purchased receivables, investments in associates and joint ventures, premises and equipment, goodwill, intangible assets, and other items. Other assets remained essentially unchanged from last year.

Deposit Liability

At $139.9 billion as at October 31, 2016, deposits increased by $11.1 billion or 9% since year-end 2015. Personal deposits, as presented in Table 11 (page 99), stood at $49.8 billion (accounting for 36% of all deposits), rising $3.8 billion since October 31, 2015 as a result of Bank initiatives to grow this type of deposit. A summary of total personal savings is provided in the following table.

As shown in Table 11, business and government deposits grew $11.2 billion since October 31, 2015, reaching $49.0 billion as at October 31, 2016. Deposits from deposit-taking institutions were down $0.7 billion since year-end 2015, with unsecured senior debt declining $2.0 billion since the same date. As for covered bonds, they were down $1.2 billion, as the maturities exceeded issuances in 2016.

As at October 31, 2016, total personal savings amounted to $196.1 billion, up 10% from $177.8 billion as at October 31, 2015. Overall, off-balance-sheet personal savings stood at $146.3 billion, a $14.5 billion or 11% increase since year-end 2015 driven by excellent net inflows to the various distribution networks and by a stock market recovery.

Total Personal Savings

As at October 31 (millions of Canadian dollars)	2016	2015	% change
Balance sheet			
Deposits	**49,802**	45,981	**8**
Off-balance-sheet			
Full-service brokerage	**117,157**	105,395	**11**
Mutual funds	**28,706**	25,783	**11**
Other	**463**	636	**(27)**
	146,326	131,814	**11**
Total	**196,128**	177,795	**10**

Other Liabilities

Other liabilities stood at $79.2 billion as at October 31, 2016 and consisted of the following items: acceptances, obligations related to securities sold short, obligations related to securities sold under repurchase agreements and securities loaned, derivative financial instruments, amounts due to clients, dealers and brokers, liabilities related to transferred receivables, and other liability items. Total other liabilities increased $4.8 billion since October 31, 2015, essentially due to an $8.8 billion increase in obligations related to securities sold under repurchase agreements and securities loaned, which reflects the higher level of funding and client activity, partly offset by a $3.1 billion decrease in obligations related to securities sold short.

Subordinated Debt and Other Contractual Obligations

Subordinated debt decreased $510 million since October 31, 2015, mainly due to the fiscal 2016 redemption of notes with a nominal value of $500 million maturing in November 2020.

Contractual obligations are presented in detail in Note 30 to the consolidated financial statements.

Equity

As at October 31, 2016, equity attributable to the Bank's shareholders was $11.3 billion, up $0.7 billion from $10.6 billion as at October 31, 2015. This increase came essentially from the issuances of Series 34 and 36 preferred shares for an amount of $800 million, partly offset by the redemption of Series 20 preferred shares in an amount of $176 million. Retained earnings remained stable, a result of net income, net of dividends, being offset by remeasurements of pension plans and other post-employment benefit plans. The Consolidated Statements of Changes in Equity on page 107 of this Annual Report present the items of equity.

As at October 31, 2016, the Bank had 338.1 million common shares issued and outstanding compared to 337.2 million a year earlier. This increase was mainly due to the issuance of shares under the Stock Option Plan. The Bank redeemed 6.9 million Series 20 preferred shares and issued 32 million Series 34 and 36 first preferred shares. See Note 19 to the consolidated financial statements. An analysis of the Bank's regulatory capital is presented in the Capital Management section of this MD&A.

Shares and Stock Options

	As at October 31, 2016	
	Number of shares	$ million
First preferred shares		
Series 28	8,000,000	200
Series 30	14,000,000	350
Series 32	12,000,000	300
Series 34	16,000,000	400
Series 36	16,000,000	400
	66,000,000	1,650
Common shares(1)	338,053,054	2,645
Stock options(1)	17,302,322	

(1) As at November 25, 2016, there were 338,083,432 common shares and 17,207,070 stock options outstanding.

Related Party Transactions

In the normal course of business, the Bank provides various banking services and enters into contractual agreements and other transactions with associates, joint ventures, directors, key officers and other related parties. These agreements and transactions are entered into under conditions similar to those offered to non-related third parties.

Loans to eligible key officers are granted under the same conditions as those granted to any other employee of the Bank. The main conditions are as follows:

- the employee must meet the same credit requirements as a client;
- mortgage loans, to a maximum of $200,000, are granted for a three-year term at the posted rate less 2% and, for a five-year term, at the posted rate less 2.5% limited to half of the posted rate. Any amount over the $200,000 maximum is financed at the preferential employee rate;
- home equity lines of credit bear interest at Canadian prime less 1%, but never lower than Canadian prime divided by two;
- personal loans bear interest at a risk-based regular client rate;
- credit card advances bear interest at a prescribed fixed rate in accordance with Bank policy;
- personal lines of credit bear interest at Canadian prime less 1%, but never lower than Canadian prime divided by two.

For personal lines of credit, employees may not borrow more than 50% of their annual gross base salary at the reduced rate. The Canadian prime rate is applied to the remainder.

In accordance with the *Bank Act* (Canada), the aggregate of loans granted to key officers of the Bank, excluding mortgage loans granted on their principal residence, cannot exceed twice the officer's base salary.

Furthermore, the Bank offers a deferred stock unit plan to directors who are not Bank employees. For additional information, see Note 23 to the consolidated financial statements. Additional information on related parties is presented in Notes 9, 28 and 29 to the consolidated financial statements.

Acquisition

Advanced Bank of Asia Limited

On May 16, 2016, the Bank completed the acquisition of Advanced Bank of Asia Limited (ABA), a major Cambodian financial institution that offers financial products and services to individuals and businesses. This acquisition is part of the Bank's international growth strategy and, upon completion, brings the Bank's common share equity interest in ABA to 90%. The sum of the $119 million cash purchase price, of the fair value of the previously held interest, and of the estimated value of the non-controlling interest established at the acquisition date exceeds the fair value of the net assets acquired by $129 million. This excess amount was recorded on the Consolidated Balance Sheet as goodwill and mainly represents ABA's expected business growth in Cambodia. The goodwill from this acquisition is not deductible for tax purposes. The acquired receivables, consisting mainly of personal and commercial loans, had an estimated acquisition-date fair value of $754 million. This amount also represents the gross contractual amounts receivable that the Bank expects to fully recover.

For the year ended October 31, 2016, the amount of the acquisition-related cost included in *Non-interest expenses* in the Consolidated Statement of Income was negligible. During the year ended October 31, 2016, the Bank also recognized a $41 million non-taxable gain on the revaluation of its previously held equity interest in ABA in the *Non-interest income – Other* item of the Consolidated Statement of Income. For business segment disclosure purposes, this gain and ABA's financial results have been included in the *Other* heading. ABA's results have been consolidated in the Bank's financial statements as of May 17, 2016. During the year ended October 31, 2016, ABA contributed approximately $43 million to the Bank's total revenues and $21 million to its net income. Had the Bank completed the acquisition on November 1, 2015, it would have reported total revenues of approximately $5,873 million and net income of approximately $1,266 million for the year ended October 31, 2016.

During the measurement period, the estimated fair values of all assets acquired and liabilities assumed may be retrospectively adjusted to reflect new information obtained about facts and circumstances that had existed on the acquisition date.

Maple Financial Group Inc.

Maple Financial Group Inc. (Maple) is a privately owned Canadian company that operated through direct and indirect wholly owned subsidiaries in Canada, Germany, the United Kingdom and the United States. The Bank has a 24.9% equity interest in that company. In August 2016, Maple filed for bankruptcy under the applicable Canadian laws, and a receiver was appointed to administer the company. Similar proceedings have been initiated for each of Maple's other material subsidiaries in their home jurisdictions.

Maple Bank GmbH, an indirect wholly owned subsidiary of Maple, has been the subject of an investigation into alleged tax irregularities by German prosecutors since September 2015 and that, to the Bank's knowledge, is ongoing. The Bank understands that the investigation is focusing on selected trading activities by Maple Bank GmbH and some of its current and former employees during taxation years 2006 to 2010. The German authorities have alleged that these trading activities violated German tax laws. Neither the Bank nor its employees were involved in these trading activities and, to the Bank's knowledge, are not the subject of this investigation.

On February 6, 2016, the German Federal Financial Supervisory Authority, BaFin, placed a moratorium on the business activities of Maple Bank GmbH, preventing it from carrying out its normal business activities. In light of the situation, the Bank wrote off the carrying value of its equity interest in Maple in an amount of $164 million ($145 million net of income taxes) during the first quarter of 2016. The $164 million write-off of the equity interest in this associate was recognized in the *Non-interest income – Other* item of the Consolidated Statement of Income for the year ended October 31, 2016 and is reported in the Financial Markets segment.

The Bank has advised the German authorities that if it is determined that portions of dividends received from Maple could be reasonably attributable to tax fraud by Maple Bank GmbH, arrangements will be made to repay those amounts to the relevant authority. If any repayments are required, they are not expected to be material to the Bank's financial position.

SECURITIZATION AND OFF-BALANCE-SHEET ARRANGEMENTS

In the normal course of business, the Bank is party to various financial arrangements that, under IFRS, are not required to be recorded on the Consolidated Balance Sheet or are recorded under amounts other than their notional or contractual values. These arrangements include, among others, transactions with structured entities, derivative financial instruments, the issuance of guarantees, the margin funding facility of the MAV conduits, credit instruments, and financial assets received as collateral.

Structured Entities

The Bank uses structured entities, among other means, to diversify its funding sources and to offer services to clients, in particular to help them securitize their financial assets or provide them with investment opportunities. Under IFRS, a structured entity must be consolidated if the Bank controls the entity. Note 1 to the consolidated financial statements describes the accounting policy and criteria used for consolidating structured entities. Additional information on consolidated and non-consolidated structured entities is provided in Note 28 to the consolidated financial statements.

Securitization of the Bank's Financial Assets

Mortgage Loans

The Bank participates in two Canada Mortgage and Housing Corporation (CMHC) securitization programs: the Mortgage-Backed Securities Program under the *National Housing Act* (Canada) (NHA) and the Canada Mortgage Bond (CMB) Program. Under the first program, the Bank issues NHA securities backed by insured residential mortgage loans and, under the second, the Bank sells NHA securities to Canada Housing Trust (CHT), which finances the purchase through the issuance of mortgage bonds insured by CMHC. Moreover, these mortgage bonds feature an interest rate swap agreement under which a CMHC-certified counterparty pays CHT the interest due to investors and receives the interest on the NHA securities. As at October 31, 2016, the outstanding amount of NHA securities issued by the Bank and sold to CHT was $21.4 billion. The mortgage loans sold consist of fixed- or variable-rate residential loans that are insured against potential losses by a loan insurer. In accordance with the NHA-MBS Program, the Bank advances the funds required to cover late payments and, if necessary, obtains reimbursement from the insurer that insured the loan. The NHA-MBS and CMB programs do not use liquidity guarantee arrangements. The Bank uses these securitization programs mainly to diversify its funding sources. In accordance with IFRS, because the Bank retains substantially all of the risks and rewards of ownership of the mortgage loans transferred to CHT, the derecognition criteria are not met. Therefore, the insured mortgage loans securitized under the CMB program continue to be recognized in *Loans* on the Bank's Consolidated Balance Sheet and the liabilities for the considerations received from the transfer are recognized in *Liabilities related to transferred receivables* on the Consolidated Balance Sheet. For additional information, see Note 8 to the consolidated financial statements.

Credit Card Receivables

In 1998, the Bank set up the Canadian Credit Card Trust (CCCT), a securitization program for its own credit card receivables. The Bank uses this entity for capital management and funding purposes. The Bank acts as the servicer of the receivables sold, maintaining its relationships with clients. Furthermore, it administers the securitization program and ensures that all related procedures are stringently followed and that investors are paid according to the provisions of the program.

On April 2, 2015, Canadian Credit Card Trust II (CCCT II) was established under the laws of the Province of Ontario. Pursuant to an assignment and assumption agreement concluded on April 10, 2015 between CCCT and CCCT II, CCCT II acquired all of the rights, titles and interests in CCCT's assets. In consideration for such assets and rights, CCCT II agreed to assume all of the duties and obligations of CCCT. As a result, CCCT II, as primary obligor, is responsible for the payment obligations of each series of investor notes issued by CCCT that were outstanding on April 10, 2015, along with payment obligations to the seller pursuant to the Bank Certificate. CCCT was subsequently dissolved as of November 23, 2015. As at October 31, 2016, the credit card receivables portfolio held by CCCT II (net of the Bank Certificate held by the Bank) represented an amount outstanding of $1.4 billion. CCCT II issued investors' certificates, $1.3 billion of which is held by third parties and $0.1 billion is held by the Bank. New receivables are periodically sold to the structure on a revolving basis to replace the receivables reimbursed by clients.

The different series of certificates are rated by Fitch Ratings Inc. (Fitch) and DBRS Limited (DBRS). From this portfolio of sold receivables, the Bank retains the excess spread, i.e., the residual net interest income after all the expenses related to this structure have been paid, and thus provides first-loss protection. Furthermore, second-loss protection for issued series is provided by certificates subordinated to the senior notes (Series 2015-1 and 2015-2), representing 6.4% of the total amount of the series issued. The Bank controls CCCT II and thus consolidates it.

Securitization of Third-Party Financial Assets

The Bank administers multi-seller conduits that purchase financial assets from clients and finance those purchases by issuing commercial paper backed by the acquired assets. Clients use these multi-seller conduits to diversify their funding sources and reduce borrowing costs while continuing to service the financial assets and providing some amount of first-loss protection. Notes issued by the conduits and held by third parties provide additional credit loss protection. The Bank acts as a financial agent and provides administrative and transaction structuring services to these conduits. The Bank provides backstop liquidity and credit enhancement facilities under the commercial paper program. These facilities are presented and described in Notes 27 and 28 to the consolidated financial statements. The Bank has concluded derivative financial instrument contracts with these conduits, the fair value of which is presented on the Bank's Consolidated Balance Sheet. The Bank is not required to consolidate these conduits, as it does not control them.

Derivative Financial Instruments

The Bank uses various types of derivative financial instruments to meet its clients' needs, generate trading activity revenues and manage its exposure to foreign exchange, interest, and credit rate risk as well as other market risks. All derivative financial instruments are accounted for at fair value on the Consolidated Balance Sheet. Transactions in derivative financial instruments are expressed as notional amounts. These amounts are not presented as assets or liabilities on the Consolidated Balance Sheet. They represent the face amount of the contract to which a rate or price is applied to determine the amount of cash flows to be exchanged. Notes 1 and 17 to the consolidated financial statements provide additional information on the types of derivative financial instruments used by the Bank and their accounting basis.

Guarantees

In the normal course of business, the Bank enters into various guarantee contracts. The principal types of guarantees are letters of guarantee, backstop liquidity and credit enhancement facilities, certain securities lending activities, and certain indemnification agreements. Note 27 to the consolidated financial statements provides detailed information on these guarantees.

Margin Funding Facility of the MAV Conduits

The Bank has committed to contribute $800 million to a margin funding facility related to the MAV conduits in order to finance potential collateral calls. As at October 31, 2016 and 2015, no amount had been advanced by the Bank. Note 6 to the consolidated financial statements provides additional information.

Credit Instruments

In the normal course of business, the Bank enters into various off-balance-sheet credit commitments. The credit instruments used to meet the financing needs of its clients represent the maximum amount of additional credit that the Bank could be required to extend if the commitments were fully drawn. For additional information on these off-balance-sheet credit instruments and other items, see Note 27 to the consolidated financial statements.

Financial Assets Received as Collateral

In the normal course of business, the Bank receives financial assets as collateral as a result of transactions involving securities purchased under reverse repurchase agreements, securities borrowing and lending agreements, and derivative financial instrument transactions. For additional information regarding financial assets received as collateral, see Note 27 to the consolidated financial statements.

ADDITIONAL FINANCIAL DISCLOSURE

The Financial Stability Board (FSB) is an international financial group established at the London G20 Summit in April 2009 as a successor to the Financial Stability Forum (FSF) founded in 1999 at the initiative of the G7. It brings together several national financial authorities (central banks, finance ministries, etc.) as well as several international organizations and groups working to develop financial stability standards. Its objective is to promote cooperation in the oversight and monitoring of financial institutions.

In April 2008, the FSF published a report at the request of the G7 Finance Ministers and Central Bank Governors. OSFI then asked Canadian banks to apply certain recommendations set out in the report.

The recommendations seek to enhance the transparency and measurement of certain exposures, in particular structured entities, subprime and Alt-A exposures, collateralized debt obligations, residential and commercial mortgage-backed securities, and leveraged financing structures. The Bank does not market any specific mortgage financing program to subprime or Alt-A clients. Subprime loans are generally defined as loans granted to borrowers with a higher credit risk profile than prime borrowers, and the Bank does not grant this type of loan. Alt-A loans are granted to borrowers who cannot provide standard proof of income. The Bank's Alt-A loan volume was $483 million as at October 31, 2016 ($568 million as at October 31, 2015).

The Bank does not have any significant direct position in residential and commercial mortgage-backed securities that are not insured by the CMHC. Credit derivative positions are presented in the *Supplementary Regulatory Capital Disclosure* report, which is available on the Bank's website at nbc.ca.

Leveraged financing structures are defined by the Bank as loans granted to large corporate and financial sponsor-backed companies that are typically non-investment grade with much higher levels of debt relative to other companies in the same industry. Leveraged finance is commonly employed to achieve a specific objective, for example, to make an acquisition, complete a buy-out or repurchase shares. Leveraged finance risk exposure takes the form of both funded and unfunded commitments. As at October 31, 2016, total commitments for this type of loan stood at $2,694 million ($1,859 million as at October 31, 2015). Details about other exposures are provided in the table concerning structured entities in Note 28 to the consolidated financial statements.

In May 2012, the FSB formed a working group, the Enhanced Disclosure Task Force (EDTF), that was mandated to develop principles for enhancing the risk disclosures of major banks, to recommend improvements to current risk disclosures, and to identify risk disclosure best practices used by major financial institutions. On October 29, 2012, the EDTF published a report entitled *Enhancing the Risk Disclosures of Banks*, which contains 32 recommendations. The Bank continues to make every effort to ensure overall compliance with those recommendations and is continuing to enhance its risk disclosures to meet the best practices on an ongoing basis. The risk disclosures required by the EDTF are provided in this Annual Report and in the documents entitled *Supplementary Regulatory Capital Disclosure* and *Supplementary Financial Information*, which are available on the Bank's website at nbc.ca. In addition, on page 7 of this Annual Report is a table of contents that readers can use to locate information relative to the 32 recommendations.

CAPITAL MANAGEMENT

Capital management has a dual role of ensuring a competitive return to the Bank's shareholders while maintaining a solid capital foundation that covers risks inherent to the Bank's business, supports its business segments and protects its clients.

Capital Management Framework

The Bank's capital management policy defines guiding principles as well as the roles and responsibilities of its internal capital adequacy assessment process. This process aims to determine the capital that the Bank needs to pursue and accommodate unexpected losses arising from extremely adverse economic and operational conditions. The Bank has implemented a rigorous internal capital adequacy assessment process that comprises the following procedures:

- conducting an overall risk assessment;
- measuring significant risks and the capital requirements on the Bank's financial budget for the next fiscal year and current and prospective risk profiles;
- integrating stress tests across the organization and executing sensitivity analyses to determine the capital buffer above minimum regulatory levels (for additional information on enterprise-wide stress testing, see the Risk Management section of this MD&A);
- aggregating capital and monitoring the reasonableness of internal capital compared with regulatory capital;
- comparing projected internal capital with regulatory capital levels, internal operating targets, and competing banks;
- attesting to the adequacy of the levels of capital at the Bank.

Assessing capital adequacy is an integral part of capital planning and strategy. The Bank sets internal capital ratio targets that include a discretionary cushion in excess of the regulatory requirements, which provides a solid financial structure and sufficient capital to meet management's business needs in accordance with its risk appetite, along with competitive returns to shareholders, under both normal market conditions and a range of severe but plausible stress testing scenarios. The internal capital adequacy assessment process is a key tool in establishing the Bank's capital strategy and is subject to quarterly reviews and periodic amendments.

Risk-adjusted return on capital (RAROC) and shareholder value added (SVA), which are obtained from an assessment of required economic capital, are calculated quarterly for each of the Bank's business segments. The results are then used to guide management in allocating capital among the different business segments.

Structure and Governance

Along with its partners from Risk Management and from Treasury and Finance, the Capital Management team is responsible for maintaining integrated control methods and processes so that an overall assessment of capital adequacy may be performed.

The Board oversees the structure and development of the Bank's capital management policy and ensures that the Bank maintains sufficient capital in accordance with regulatory requirements and in consideration of market conditions. The Board delegates certain responsibilities to the Risk Management Committee (RMC), which in turn recommends capital management policies and oversees their application. However, the Board, on the recommendation of the RMC, assumes the following responsibilities:

- reviewing and approving the capital management policy;
- reviewing and approving the Bank's risk appetite, including the main capital and risk targets and the corresponding limits;
- reviewing and approving the capital plan and strategy on an annual basis, including the Bank's internal capital adequacy assessment process;
- reviewing and approving the implementation of significant measures respecting capital, including contingency measures;
- reviewing significant capital disclosures, including Basel capital adequacy ratios;
- ensuring the appropriateness of the regulatory capital adequacy assessment.

The Office of the President is responsible for defining the Bank's strategy and plays a key role in guiding measures and decisions regarding capital. The Asset/Liability Management Committee oversees capital management, which consists of reviewing the capital plan and strategy and implementing significant measures respecting capital, including contingency measures, and making recommendations with respect to these measures.

Basel Accord and Regulatory Environment

Basel Accord

The Basel Accord proposes a range of approaches of varying complexity, the choice of which determines the sensitivity of capital to risks. A less complex approach, such as the Standardized Approach, uses regulatory weightings, while a more complex approach uses the Bank's internal estimates of risk components to establish risk-weighted assets and calculate regulatory capital.

As required under Basel, risk-weighted assets (RWA) are calculated for each credit risk, market risk, and operational risk. The Bank uses the Advanced Internal Rating-Based (AIRB) Approach for credit risk to determine minimum regulatory capital requirements for a majority of its portfolios. The credit risk of certain portfolios considered to be less significant are weighted according to the Basel Standardized Approach. The simple risk-weighted method is used to calculate the charge related to available-for-sale securities in the form of equity securities. This method requires proactive management of the capital allocated to portfolios with equity securities since, beyond a certain investment threshold, the cost of regulatory capital becomes prohibitive. As for operational risk, the Bank uses the Standardized Approach. Market risk-weighted assets are primarily determined using the Internal Model-Based Approach, but the Standardized Approach is used to assess interest-rate specific risk. Lastly, for externally rated securitization exposures, the Bank uses the Rating-Based Approach (RBA). This approach assigns risk weights to exposures using external ratings. The Bank uses the ratings assigned by Moody's, Standard & Poor's (S&P), Fitch, DBRS or a combination of these ratings.

Capital ratios are calculated by dividing capital by risk-weighted assets. Credit, market and operational risks are factored into the risk-weighted assets calculation for regulatory purposes. Basel rules apply at the consolidated level of the Bank. Assets of non-consolidated entities for regulatory purposes are therefore excluded from the risk-weighted assets calculation.

The definition adopted by the Basel Committee on Banking Supervision (BCBS) distinguishes between three types of capital. Common Equity Tier 1 (CET1) capital consists of common shareholders' equity less goodwill, intangible assets and other capital deductions. The Additional Tier 1 instruments comprise eligible non-cumulative preferred shares and the eligible amount of innovative instruments. The sum of CET1 and Additional Tier 1 capital forms what is known as Tier 1 capital. Tier 2 capital consists of the eligible portion of subordinated debt and certain loan loss allowances. Total regulatory capital is the sum of Tier 1 and Tier 2 capital.

OSFI is responsible for applying the Basel Accord in Canada. As required under the Basel Accord, OSFI requires that regulatory capital instruments other than common equity have a non-viability contingent capital (NVCC) clause to ensure that investors bear losses before taxpayers should the government determine that it is in the public interest to rescue a non-viable financial institution. Instruments issued before January 1, 2013 that would be Basel III compliant if it were not for the absence of the NVCC clause are grandfathered and will be phased out over a period of ten years. The Bank expects to phase out all of its non-NVCC instruments without resorting to any regulatory event redemption.

The Basel III regulatory framework sets out transitional arrangements for the period of 2013 to 2019. OSFI has introduced two methodologies for determining capital. The "all-in" methodology includes all of the regulatory adjustments that will be required by 2019 while retaining the phase-out rules for non-qualifying capital instruments. The "transitional" methodology, which is in line with the BCBS guidelines, in addition to applying the phase-out rules for non-qualifying capital instruments, also applies a more flexible and steady phasing in of the required regulatory adjustments. The Bank will disclose its capital ratios calculated according to both methodologies for each quarter until the start of 2019. However, OSFI requires Canadian banks to meet the minimum "all-in" thresholds rather than the minimum thresholds calculated using the "transitional" method.

Consequently, since January 1, 2016, the Bank and all other major Canadian banks have had to maintain, on an "all-in" basis, a CET1 capital ratio of at least 8.0%, a Tier 1 capital ratio of at least 9.5%, and a Total capital ratio of at least 11.5%. All of these ratios are to include a capital conservation buffer of 2.5% and a 1% surcharge applicable to Domestic Systemically Important Banks (D-SIBs).

The table below provides a comparison of the transitional ratios established by the BCBS and those required by OSFI's "all-in" methodology. All ratios include the capital conservation buffer and the D-SIB surcharge, when applicable.

To ensure an implementation similar to that in other countries, OSFI has decided to phase in the Credit Valuation Adjustment (CVA) charge over a five-year period beginning in 2014. For fiscal 2016, only 64%, 71% and 77% of total CVA were applied, respectively, to the calculation of the CET1, Tier 1 and Total capital ratios. These percentages will increase to 72%, 77% and 81%, respectively, in 2017 and will gradually increase each year thereafter until they reach 100% by 2019.

Since January 1, 2015, OSFI has been requiring Canadian banks to meet a Basel III leverage ratio of at least 3.0%. The leverage ratio is a measure independent of risk that is calculated by dividing the amount of Tier 1 capital by total exposure. Total exposure is defined as the sum of on-balance-sheet assets (including derivative exposures and securities financing transaction exposures) and off-balance-sheet items. The assets deducted from Tier 1 capital are also deducted from total exposure.

The Bank ensures that its capital levels are always above the minimum capital requirements for OSFI's "all-in" ratios. By maintaining a strong capital structure, the Bank can cover the risks inherent to its business activities, support its business segments and protect its clients.

Other disclosure requirements pursuant to Pillar 3 of the Basel Accord and a set of recommendations defined by the EDTF are presented in the *Supplementary Regulatory Capital Disclosure* report published quarterly and available on the Bank's website at nbc.ca. Furthermore, a complete list of capital instruments and their main features is also available on the Bank's website.

Requirements – Regulatory Ratios

	2016	2017	2018	2019	2020	2021	2022
BCBS transitional ratios							
Capital conservation buffer	**0.625 %**	1.25 %	1.875 %	2.5 %	2.5 %	2.5 %	2.5 %
CET1 capital ratio	**5.125 %**	5.75 %	6.375 %	7.0 %	7.0 %	7.0 %	7.0 %
Tier 1 capital ratio	**6.625 %**	7.25 %	7.875 %	8.5 %	8.5 %	8.5 %	8.5 %
Total capital ratio	**8.625 %**	9.25 %	9.875 %	10.5 %	10.5 %	10.5 %	10.5 %
Phase-in of regulatory capital adjustments	**60 %**	80 %	100 %	100 %	100 %	100 %	100 %
Phase-out of non-qualifying capital instruments	**60 %**	50 %	40 %	30 %	20 %	10 %	– %
OSFI's "all-in" ratios							
Capital conservation buffer	**2.5 %**	2.5 %	2.5 %	2.5 %	2.5 %	2.5 %	2.5 %
D-SIB surcharge	**1.0 %**	1.0 %	1.0 %	1.0 %	1.0 %	1.0 %	1.0 %
CET1 capital ratio	**8.0 %**	8.0 %	8.0 %	8.0 %	8.0 %	8.0 %	8.0 %
Tier 1 capital ratio	**9.5 %**	9.5 %	9.5 %	9.5 %	9.5 %	9.5 %	9.5 %
Total capital ratio	**11.5 %**	11.5 %	11.5 %	11.5 %	11.5 %	11.5 %	11.5 %
Phase-out of non-qualifying capital instruments	**60 %**	50 %	40 %	30 %	20 %	10 %	– %
Leverage ratio	**3.0 %**	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %	3.0 %

Regulatory Environment

In March 2014, the BCBS issued the final rules on the standardized approach for measuring counterparty credit risk (SA-CCR), which will replace the Current Exposure Method (CEM). These rules were to take effect on January 1, 2017, but on September 9, 2016 OSFI postponed the implementation date to January 1, 2018 at the earliest.

In December 2014, the BCBS issued two consultative papers, *Capital Floors: The Design of a Framework Based on Standardised Approaches* and *Revisions to the Standardised Approach for Credit Risk,* the latter having been reviewed a second time in December 2015. The capital floor is meant to mitigate risk related to internal credit risk calculation models and enhance the comparability of the risk across banks. The new floor will replace the current one, which is still based on Basel I. The new standardized approach for credit risk aims to reduce reliance on credit rating agencies and improve sensitivity to certain risks.

On January 28, 2015, the BCBS issued the final disclosure rules under Pillar 3: *Revised Pillar 3 Disclosure Requirements.* The new requirements are intended to improve transparency, consistency and comparability of results across banks and must be applied as of the end of 2016. However, on January 21, 2016, OSFI issued a draft guideline entitled *Pillar 3 Disclosure Requirements,* specifying therein that D-SIBs will have to meet the BCBS's requirements as of the fiscal year ending October 31, 2017; most recently, in August 2016, OSFI decided to postpone the application to the fiscal year ending October 31, 2018. The final version of the guideline will replace OSFI's November 2007 advisory, *Pillar 3 Disclosure Requirements.* On March 11, 2016, the BCBS issued a consultative paper entitled *Pillar 3 Disclosure Requirements – Phase 2.*

In July 2015, the BCBS issued a consultative paper, *Review of the Credit Valuation Adjustment Risk Framework,* with the aim of ensuring that all important drivers of CVA are considered in calculating capital, aligning the various accounting frameworks and ensuring consistency with the market risk framework. No date has been set for the implementation of these new rules, which will increase the level of capital the Bank is required to maintain.

On November 9, 2015, the FSB issued a standard entitled *Total Loss-Absorbing Capacity (TLAC) Standard for Global Systemically Important Banks (G-SIBs),* which aims to implement a resolution strategy to determine whether global systemically important banks (G-SIBs) have sufficient loss-absorbing capacity to minimize impacts on financial stability and maintain the continuity of critical economic functions. On October 12, 2016, the BCBS issued the final document, *TLAC Holdings*, which provides a framework for the standard. It sets out the regulatory capital treatment applicable to loss-absorbing instruments held by internationally active banks. This prudential treatment is intended to reduce contagion in the financial system should a G-SIB go into resolution. There is currently no guidance on how the standard will be incorporated into Canada's bail-in regime, which is still being finalized.

On December 17, 2015, the BCBS issued a consultative paper, *Identification and Measurement of Step-In Risk,* that measures the risk of the Bank providing support to an unconsolidated entity, should that entity experience financial stress, and do so beyond or in the absence of any contractual obligation in order to mitigate the impact of the shadow banking system.

On January 14, 2016, the BCBS issued the final rules for calculating market risk in *Minimum Capital Requirements for Market Risk,* a document that aims to remedy structural weaknesses in the trading portfolio that had not been addressed in previous market risk revisions. These rules will come into effect on January 1, 2019.

On March 4, 2016, the BCBS issued *Standardised Measurement Approach for Operational Risk,* a consultative document that proposes a new standardized method for calculating operational risk.

In its federal budget tabled on March 22, 2016, the Government of Canada confirmed its intention to implement a new bail-in regime applicable to D-SIBs. On April 20, 2016, the government introduced a bill to that end, and, on June 22, 2016, a law was adopted. The law amends the *Canada Deposit Insurance Corporation Act* (CDICA) to, among other things, permit the Canada Deposit Insurance Corporation (CDIC) to be appointed receiver of a D-SIB and to convert certain shares and certain eligible liabilities of a D-SIB into common shares of the concerned bank if OSFI considers that the bank has ceased, or is about to cease, to be viable. The terms and conditions of such a conversion will be prescribed by regulations. The law also provides that OSFI will require D-SIBs to maintain a minimum capacity to absorb losses. Loss absorbency requirements will be established to ensure that affected banks maintain sufficient capital to absorb the proposed conversions. The implementation date of the proposed regime has not yet been determined. The Bank continues to monitor bail-in regime developments, as additional details on implementation, scope and timing are expected to follow through regulations.

On March 24, 2016, the BCBS issued *Reducing Variation in Credit Risk-Weighted Assets – Constraints on the Use of Internal Model Approaches,* a consultative document that aims to limit the use of advanced credit risk calculation models. On April 6, 2016, the BCBS also issued *Revisions to the Basel III Leverage Ratio Framework,* a consultative document that proposes, in particular, revisions to the treatment of derivative exposures.

On April 21, 2016, the BCBS issued *Interest Rate Risk in the Banking Book,* a document that addresses risk management, capital treatment and the supervision of interest rate risk in the banking book. These rules, which have to be implemented by 2018, are intended to ensure that banks have adequate capital to cover potential banking book losses arising from interest rate movements and to limit capital arbitrage between the trading book and the banking book.

In July 2016, the BCBS revised the final securitization framework rules issued in December 2014 in the document entitled *Revisions to the Securitisation Framework,* which will come into effect as of January 2018. This document was amended to include *Criteria for Identifying Simple, Transparent and Comparable Securitisations,* a document issued in July 2015, as well as *Capital Treatment for 'Simple, Transparent and Comparable' Securitisations,* a consultative paper issued in November 2015. The aim of this new document is to address some shortcomings in the current securitization framework while allowing a more favourable capital treatment for transactions meeting the requirements of simplicity, transparency and comparability.

Lastly, on October 11, 2016, the BCBS issued consultative document *Regulatory Treatment of Accounting Provisions – Interim Approach and Transitional Arrangements* as well as a discussion paper entitled *Regulatory Treatment of Accounting Provisions*. These documents follow up on the IASB's publication of IFRS 9, which requires the recognition of provisions for expected credit losses rather than incurred losses, as required by the current accounting standard. The consultative document proposes to retain, during the interim period, the current regulatory treatment of accounting provisions for credit losses and also recommends various transitional measures. The discussion paper proposes, as part of the Basel III regulatory framework, long-term options for the treatment of provisions for expected credit losses arising from the adoption of IFRS 9.

Capital Management in 2016

Management Activities

On November 2, 2015, the Bank redeemed $500 million of medium-term notes maturing in November 2020 at a price equal to their nominal value plus accrued interest. These instruments had been excluded from the capital ratio calculations as at October 31, 2015.

On November 15, 2015, the Bank redeemed all of the issued and outstanding Non-Cumulative Fixed-Rate Series 20 First Preferred Shares. Pursuant to the share conditions, the redemption price was $25.50 per share plus the periodic dividend declared and unpaid. These instruments had been excluded from the capital ratio calculations as at October 31, 2015.

On January 22, 2016, the Bank issued 16,000,000 Non-Cumulative 5-Year Rate-Reset Series 34 First Preferred Shares at a price equal to $25.00 per share for gross proceeds of $400 million. Given that the Series 34 preferred shares satisfy the non-viability contingent capital requirements, they qualify for the purposes of calculating regulatory capital under Basel III.

On June 13, 2016, the Bank issued 16,000,000 Non-Cumulative 5-Year Rate-Reset Series 36 First Preferred Shares at a price equal to $25.00 per share for gross proceeds of $400 million. Given that the Series 36 preferred shares satisfy the non-viability contingent capital requirements, they qualify for the purposes of calculating regulatory capital under Basel III.

On June 30, 2016, NBC Capital Trust, an open-end trust established by the Bank, redeemed the 225,000 Trust Capital Securities – Series 1, or NBC CapS – Series 1, issued and outstanding on June 30, 2016 at a redemption price of $1,000 per trust capital security plus the unpaid distributions as at the redemption date. Given this redemption, the Bank redeemed the $225 million deposit note from NBC Capital Trust.

Regulatory Capital Ratios

As at October 31, 2016, the Bank's CET1, Tier 1 and Total capital ratios were, respectively, 10.1%, 13.5% and 15.3%, i.e., above the regulatory requirements, compared to ratios of, respectively, 9.9%, 12.5% and 14.0% a year earlier. The increase in the CET1 capital ratio arises mainly from net income, net of dividends, and a decrease in risk-weighted assets. The increase in the Tier 1 and the Total capital ratios stems essentially from the above-mentioned factors and from the issuances of Series 34 and 36 preferred shares for $800 million, partly offset by the Bank's redemption of the $225 million deposit note from NBC Capital Trust. Lastly, as at October 31, 2016, the leverage ratio stood at 3.7%, unchanged from October 31, 2015.

Regulatory Capital and Ratios Under Basel III[1]

As at October 31 (millions of Canadian dollars)	2016	2015
Capital		
CET1	**6,865**	6,801
Tier 1[2]	**9,265**	8,626
Total[2][3]	**10,506**	9,678
Risk-weighted assets		
CET1 capital	**68,205**	68,835
Tier 1 capital	**68,430**	69,094
Total capital	**68,623**	69,316
Total exposure	**253,097**	234,957
Capital ratios		
CET1	**10.1 %**	9.9 %
Tier 1[2]	**13.5 %**	12.5 %
Total[2][3]	**15.3 %**	14.0 %
Leverage ratio	**3.7 %**	3.7 %

(1) Figures are presented on an "all-in" basis.
(2) Figures as at October 31, 2015 include the redemption of the Series 20 preferred shares on November 15, 2015.
(3) Figures as at October 31, 2015 include the $500 million redemption of notes on November 2, 2015.

For additional information on capital instruments, see Notes 16, 19 and 20 to the consolidated financial statements.

Dividends

The Bank's strategy for common share dividends is to aim for a dividend payout ratio of between 40% and 50% of net income excluding specified items, taking into account such factors as financial position, cash needs, regulatory requirements and any other factor deemed relevant by the Board.

For fiscal 2016, the Bank declared $736 million in dividends to common shareholders, which represents 66% of net income attributable to common shareholders (2015: 45%). Excluding specified items, these dividends represented 50% of net income attributable to common shareholders (2015: 43%). The declared dividends are within the target payout range. Given the current economic conditions, the Bank has taken a prudent approach to managing regulatory capital. Nevertheless, it remains confident in its ability to increase earnings going forward.

Movement in Regulatory Capital[1]

Year ended October 31 (millions of Canadian dollars)	2016	2015
Common Equity Tier 1 (CET1) capital		
Balance at beginning	6,801	5,985
Issuance of common shares (including Stock Option Plan)	43	339
Repurchase of common shares	–	–
Common share capital issued by subsidiaries and held by third parties	7	–
Contributed surplus	6	15
Dividends on preferred and common shares	(797)	(717)
Net income attributable to the Bank's shareholders	1,181	1,549
Removal of own credit spread net of income taxes	19	4
Other	(383)	23
Movements in accumulated other comprehensive income		
Translation adjustments	22	7
Available-for-sale securities	39	(156)
Other	1	4
Change in goodwill and intangible assets (net of related tax liability)	(210)	(170)
Other, including regulatory adjustments and transitional arrangements		
Change in defined benefit pension plan asset (net of related tax liability)	147	(61)
Change in amount exceeding 15% threshold		
Deferred tax assets	–	–
Significant investment in common shares of financial institutions	–	–
Change in other regulatory adjustments[2]	(11)	(21)
Balance at end	6,865	6,801
Additional Tier 1 capital		
Balance at beginning	1,825	1,998
New Tier 1 eligible capital issuances	800	–
Redeemed capital[3]	–	(173)
Change in non-qualifying Additional Tier 1 subject to phase-out	(225)	–
Other, including regulatory adjustments and transitional arrangements	–	–
Balance at end	2,400	1,825
Total Tier 1 capital	9,265	8,626
Tier 2 capital		
Balance at beginning	1,052	1,885
New Tier 2 eligible capital issuances	–	–
Redeemed capital[4]	–	(850)
Change in non-qualifying Tier 2 subject to phase-out	–	–
Tier 2 instruments issued by subsidiaries and held by third parties	2	–
Change in certain loan loss allowances	186	17
Other, including regulatory adjustments and transitional arrangements	1	–
Balance at end	1,241	1,052
Total regulatory capital	10,506	9,678

(1) Figures are presented on an "all-in" basis.
(2) Represents the change in investments in the Bank's own CET1 and shortfall of total provisions to expected losses.
(3) Figures for the year ended October 31, 2015 include the redemption of the Series 20 preferred shares on November 15, 2015.
(4) Figures for the year ended October 31, 2015 include the $500 million redemption of notes on November 2, 2015.

RWA by Key Risk Drivers

CET1 RWA stood at $68.2 billion as at October 31, 2016 compared to $68.8 billion as at October 31, 2015, a $0.6 billion decrease resulting mainly from model updates, offset by the acquisition of the ABA subsidiary and foreign exchange movements. The Bank's CET1 risk-weighted assets are presented in the following table.

Capital Adequacy Under Basel III[1]

As at October 31 (millions of Canadian dollars)					2016		2015
	Exposure at default				Risk-weighted assets	Capital requirement[2]	Risk-weighted assets
		Standardized Approach	AIRB Approach	Other Approach	Total		Total
Credit risk							
Retail							
Residential mortgages	46,578	719	4,736	–	5,455	436	4,975
Qualifying revolving retail	5,716	–	1,178	–	1,178	94	1,036
Other retail	15,374	1,904	4,919	–	6,823	546	6,651
Non-retail							
Corporate	58,262	2,001	25,392	–	27,393	2,191	26,662
Sovereign	26,826	222	653	–	875	70	629
Financial institutions	4,935	305	1,269	–	1,574	126	974
Banking book equities[3]	631	–	631	–	631	50	593
Securitization	4,068	–	831	–	831	67	798
Other assets	26,449	–	–	3,420	3,420	274	4,252
Counterparty credit risk							
Corporate	14,445	156	191	–	347	28	96
Sovereign	30,887	–	34	–	34	3	22
Financial institutions	37,159	–	402	–	402	32	1,402
Trading portfolio	9,623	213	2,132	–	2,345	187	2,774
Credit valuation adjustment charge[4]		2,055	–	–	2,055	165	2,367
Regulatory scaling factor		–	2,540	–	2,540	203	2,512
Total – Credit risk	280,953	7,575	44,908	3,420	55,903	4,472	55,743
Market risk							
VaR		–	1,014	–	1,014	81	1,262
Stressed VaR		–	1,067	–	1,067	85	1,875
Interest-rate-specific risk		726	–	–	726	58	828
Total – Market risk		726	2,081	–	2,807	224	3,965
Operational risk		9,495	–	–	9,495	760	9,127
Total	280,953	17,796	46,989	3,420	68,205	5,456	68,835

(1) Figures are presented on an "all-in" basis.
(2) The capital requirement is equal to 8% of risk-weighted assets.
(3) Calculated using the simple risk-weighted method.
(4) Calculated based on CET1 RWA.

Risk-Weighted Assets Movement by Key Drivers[1]

Quarter ended (millions of Canadian dollars)	October 31, 2016	July 31, 2016	April 30, 2016	January 31, 2016	October 31, 2015
	Total	Total	Total	Total	Total
Credit risk – Risk-weighted assets at beginning	55,848	55,150	56,684	55,743	56,398
Book size	640	(414)	(368)	631	1,038
Book quality	68	(135)	(41)	(411)	(365)
Model updates	(954)	–	8	–	(1,324)
Methodology and policy	–	–	–	–	–
Acquisitions and disposals	–	790	–	–	–
Foreign exchange movements	301	457	(1,133)	721	(4)
Credit risk – Risk-weighted assets at end	55,903	55,848	55,150	56,684	55,743
Market risk – Risk-weighted assets at beginning	3,291	3,971	3,779	3,965	3,121
Movement in risk levels[2]	(484)	(680)	192	(186)	217
Model updates	–	–	–	–	627
Methodology and policy	–	–	–	–	–
Acquisitions and disposals	–	–	–	–	–
Market risk – Risk-weighted assets at end	2,807	3,291	3,971	3,779	3,965
Operational risk – Risk-weighted assets at beginning	9,391	9,254	9,278	9,127	9,098
Movement in risk levels	104	137	(24)	151	29
Acquisitions and disposals	–	–	–	–	–
Operational risk – Risk-weighted assets at end	9,495	9,391	9,254	9,278	9,127
Risk-weighted assets at end	68,205	68,530	68,375	69,741	68,835

(1) Figures are presented on an "all-in" basis and have been calculated based on CET1 risk-weighted assets.
(2) Also includes foreign exchange rate movements that are not considered material.

The table above provides the risk-weighted assets movements by key drivers underlying the different risk categories.

The "Book size" item reflects organic changes in exposure size and composition (including new loans and maturing loans). RWA movements attributable to book size include increases or decreases in exposures, measured by exposure at default, assuming a stable risk profile.

The "Book quality" item is the Bank's best estimate of changes in book quality related to experience, such as underlying customer behaviour or demographics, including changes resulting from model recalibrations or realignments.

The "Model updates" item is used to reflect implementations of new models, changes in model scope, and any other change applied to address model malfunctions. In the fourth quarter of 2016, this item includes the conversion to the Advanced Internal Rating-Based Approach of some positions previously weighted under the Standardized Approach.

The "Methodology and policy" item presents the impact of changes in calculation methods resulting from changes in regulatory policies.

The "Acquisitions and disposals" item includes the impact of the acquisition of the ABA subsidiary completed during the quarter ended July 31, 2016.

Allocation of Economic Capital and Regulatory RWA

Economic capital is an internal measure that the Bank uses to determine the capital it needs to remain solvent and to pursue its business operations. Economic capital takes into consideration the credit, market, operational, business and other risks to which the Bank is exposed as well as the risk diversification effect among them and among the business segments. Economic capital thus helps the Bank to determine the capital required to protect itself against such risks and ensure its long-term viability. The by-segment allocation of economic capital and regulatory RWA was done on a stand-alone basis before attribution of goodwill and intangible assets. The method used to assess economic capital is reviewed regularly in order to accurately quantify these risks.

The Risk Management section of this MD&A provides comprehensive information about the main types of risk. The "Other risks" presented below include risks such as business risk and structural interest rate risk in addition to the benefit of diversification among types of risk.

Allocation of Risks by Business Segment

As at October 31, 2016
(millions of Canadian dollars)

NATIONAL BANK OF CANADA

	Personal and Commercial		Wealth Management		Financial Markets		Other	
Major activities	Banking services Credit services Financing Investment solutions Insurance		Investment solutions Trust services Banking services Credit services Wealth management solutions		Banking services Investment banking services Financing solutions to institutional clients Trading and investment solutions U.S. specialty finance		Treasury operations Liquidity management Bank funding Asset and liability management Corporate units International activities	
Economic capital by type of risk	Credit	1,628	Credit	158	Credit	2,073	Credit	95
	Market	–	Market	–	Market	217	Market	(16)
	Operational	341	Operational	196	Operational	245	Operational	(7)
	Other risks	181	Other risks	368	Other risks	297	Other risks	330
	Total	**2,150**	**Total**	**722**	**Total**	**2,832**	**Total**	**402**
Risk-weighted assets	Credit	28,412	Credit	2,523	Credit	21,462	Credit	3,506
	Market	–	Market	–	Market	2,737	Market	70
	Operational	4,163	Operational	2,416	Operational	3,013	Operational	(97)
	Total	**32,575**	**Total**	**4,939**	**Total**	**27,212**	**Total**	**3,479**

RISK MANAGEMENT

In this section of the MD&A, grey-shaded text and tables marked with an asterisk (*) are integral parts of the consolidated financial statements. They represent the Bank's objectives, the risk management policies and procedures, and the methods applied to measure credit risk, market risk as well as liquidity and funding risk, as required by IFRS 7 – *Financial Instruments: Disclosures.*

The Bank views risk as an integral part of its development and the diversification of its activities and advocates a risk management approach consistent with its business expansion strategy. The purpose of sound risk management is to provide reasonable assurance that incurred risks do not exceed acceptable thresholds and that risk-taking contributes to the creation of shareholder value. For the Bank, this means striking a healthy balance between return and risk.

The Bank is exposed to risk in two ways. First, it voluntarily exposes itself to certain risk categories, particularly credit and market risk, in order to generate revenue. Second, it assumes risks that are inherent to its activities—to which it does not choose to expose itself—and that do not generate revenue, i.e., mainly operational risk. These risks may result in losses that could adversely affect future earnings.

Top and Emerging Risks

Top and emerging risks are risks that could have a material adverse effect on the Bank's financial results, reputation or long-term business model and strategy. The Bank's processes are designed to detect and assess these risks as early as possible so that appropriate mitigating strategies can be applied. The Bank's top and emerging risks are as follows.

Regulatory Reforms

The banking industry is facing an increasing number of regulatory changes, the scope and intensity of which are unprecedented. These changes include, among others, mortgage underwriting activities and changes that are likely to arise from the federal government's review of certain components of Canada's payment system, in particular governance, mobile payment, debit and credit cards and the regulatory framework. In addition, the commercial practices and revenues of banks could be affected by court decisions making certain provisions in provincial laws applicable to banks and by financial consumer reforms initiated at the federal level. Achieving compliance with some of these changes and reforms may require significant effort and could affect the way the Bank operates in its domestic market and abroad. The Bank monitors regulatory developments and acts in a proactive manner to achieve compliance while seeking to mitigate any adverse effects on its activities and profitability.

Changes in regulatory and legal frameworks are a significant potential risk factor for the Bank. Various laws, regulations and other guidelines have been introduced by governments and regulatory bodies to protect the interests of the general public and of the Bank's clients, employees and shareholders. Changes to these laws, regulations and other guidelines, including changes in their interpretation or application, could have a significant impact on the Bank. In particular, such changes could limit its product and service offering or enhance its competitors' ability to rival the Bank's offering with their own. Also, in spite of the precautions the Bank takes to prevent such an eventuality, failure to comply with laws, regulations and other guidelines could give rise to penalties and fines likely to have an adverse impact on its financial results and reputation.

General Business and Economic Conditions

Although the Bank operates primarily in Canada, it also has business operations in the United States and other countries. The Bank's revenues could therefore be affected by the economic and business conditions prevailing in these countries. Such conditions include the strength of the economy and inflation, the credit conditions of businesses, financial market and exchange rate fluctuations, monetary policy trends and interest rates. All of these factors affect the business and economic conditions in a given geographic region and, consequently, affect the Bank's level of business activity and resulting earnings in that region. Although some risks may seem remotely related to the Bank's business context, strong global economic and financial integration requires a vigilant approach. See the Major Economic Trends section on page 17 of this MD&A for additional information on the economy.

Global Economic Risks

Currently, the main global risks consist of slowing economic growth in certain emerging countries, geopolitical tensions and the adoption of protectionist measures that are undermining international trade. In addition, given exceptional monetary measures taken by central banks combined with mild economic growth and low inflation, long-term interest rates continue to be historically low in major advanced economies. Such a situation may have prompted market participants to adopt excessive risk-taking strategies in search of higher returns, the negative effects of which may be felt if interest rates return to normal faster than expected, particularly in the United States. Therefore, the Bank is remaining vigilant and continuing to rely on its strong risk management framework to identify, assess and mitigate risk so that it remains within the risk appetite limits.

Economic Risks in Canada

The global shock in oil supply combined with a strong U.S. dollar have driven down energy prices. Given these conditions, the energy sector is struggling and in turn undermining economic growth in Canada, particularly in the fossil-fuel-producing provinces. Despite this headwind, stable financial conditions in central Canada continue to support a credit environment that is favourable to our loan portfolio. Still, Canada remains vulnerable to a deteriorating economic backdrop, which threatens to erode job creation and disposable household income—even more so given the high household debt levels. A housing price correction stands as another threat to the Canadian economy. Therefore, the Bank is continuing to monitor the evolution of the market and to remain vigilant in line with its risk tolerance policy.

Low Oil and Gas Prices

The strong drop in oil and gas prices has had a major, direct impact on the energy sector, challenging many energy companies to implement a broad range of measures to address the situation. Should oil and gas prices remain depressed for an extended period of time, the obstacles to be overcome by these companies will only become more daunting and will affect their repayment capacity and credit quality. The potential impact of a prolonged decrease on the Bank's operating results depends on how long oil prices remain low and how our clients deploy measures to increase efficiency, reduce outflows of funds, sell assets and raise capital. The Bank is actively managing this portfolio, and several measures have already been taken with our clients to limit the risk of loss.

Information System Disruptions and Security Breaches

Technology has become a major part of the banking industry's operations given the ever-increasing use of information technologies such as mobile, wireless and web-enabled devices. Despite the Bank's efforts to ensure system and information integrity, it may be unable to prevent or implement effective preventive measures against every potential cyber-threat, as the tactics used change frequently, come from a wide range of sources and are increasingly sophisticated.

Disruptions to or malfunctions in the physical infrastructure or operating systems that support the Bank and its clients, or cyber-threats and security breaches affecting the networks, systems or tools that clients use to access products and services, could cause client attrition, financial loss, inability of clients to do their banking, non-compliance with privacy legislation or any other laws in effect, fines, penalties or regulatory action, reputational damage, cost reimbursement, or any other compliance costs, all of which could affect the Bank's operating results or financial position.

The Bank closely monitors its control environment and continues to enhance processes and practices used to ensure its continuous effectiveness and protection.

Reliance on Technology and Third Parties

The Bank is reliant on technology, as clients are seeking greater access to products and services on a variety of platforms and because many of the products and services require substantial data processing. As such, the Bank's technology platform must be able to manage all such data. The fast pace of technological change combined with both client and competitive pressures require significant and sustained investment in technology. Unsuccessful implementation of technological improvements or new products or services could significantly affect the Bank's ability to serve and retain clients.

Third parties provide essential components of the Bank's commercial infrastructure such as Internet connections and access to network and other communications services. The Bank is also party to outsourcing agreements for IT support and for cash management and processing. Interruptions in these services could adversely affect the Bank's ability to provide products and services to its clients and conduct its business. To mitigate this risk, the Bank has a robust outsourcing risk management framework that includes business continuity plans that are tested periodically to ensure their effectiveness in times of crisis.

Technological Innovation

The Bank's financial performance depends in part on its ability to develop and market new and innovative products and services, adopt and develop new technologies that help differentiate its products and services and generate cost savings, and market these new products and services at the right time and at competitive prices. Failure to properly review critical changes within the business before and during the implementation and deployment of key technological systems or failure to align client expectations with the Bank's client commitments and operating capabilities could adversely affect the Bank's operating results or financial position.

Other Factors That Can Affect Future Results

International Risks

Through the operations of some of its units and subsidiaries in Canada and abroad (in particular, Credigy Ltd. and Advanced Bank of Asia Limited), the Bank is exposed to risks arising from its presence in international markets and foreign jurisdictions. While these risks do not affect a significant proportion of the Bank's portfolios, their impact must not be overlooked, especially those that are of a legal or regulatory nature. Such risk can be particularly high when the exposure is in a territory where the enforceability of agreements signed by the Bank is uncertain, in countries and regions facing political or socio-economic disturbances, or in countries that may be subject to international sanctions. Generally speaking, there are many ways in which the Bank may be exposed to the risks posed by other countries, not the least of which being foreign laws and regulations. In all such situations, it is important to consider what is referred to as "country risk," which affects not only the activities that the Bank carries out abroad but also the business that it conducts with non-resident clients as well as the services it provides to clients doing business abroad, such as electronic funds transfers and international products.

As part of its activities related to managing international sanctions and to combat money laundering and terrorist financing (MLTF), the Bank audits country risk. This control may have restrictions, the scope of which can vary based on current sanctions and on the MLTF risk classification of the country in question.

The Bank is exposed to financial risks outside Canada and the United States primarily through its interbank transactions on international financial markets or through international trade finance activities. Such geographic exposure, which accounts for but a moderate proportion of overall risk, is disclosed in the quarterly *Supplementary Financial Information* report available on the Bank's website at nbc.ca. To control country risk, the Bank sets credit concentration limits by country and reviews and submits them to the Board for approval upon renewal of the Credit Risk Management Policy. These limits, which are based on a percentage of the Bank's regulatory capital, are proportionate to the level of risk represented by each country, particularly emerging countries. The risk is rated using a classification mechanism similar to the one used for credit default risk. In addition to the country limits per se, authorization caps and limits are established, as a percentage of capital, for the world's high-risk regions, i.e., essentially all regions except for North America, Western European countries and the developed countries of Asia.

Level of Competition

The level of competition in the Bank's markets has an impact on its performance. Retaining clients hinges on several factors, including the prices of products and services, quality of service, and changes to the products and services offered.

Acquisitions

The Bank's ability to successfully complete an acquisition is often conditional on regulatory approval, and the Bank cannot be certain when or under what conditions, if any, approval will be granted. Acquisitions could affect future results should the Bank experience difficulty integrating the acquired business. If the Bank does encounter difficulty integrating an acquired business, maintaining an appropriate governance level over the acquired business, or retaining key officers within the acquired business, these factors could prevent the Bank from realizing expected revenue growth, cost savings, market share gains and other projected benefits of the acquisition.

Ability to Attract and Retain Key Officers

The Bank's future performance depends largely on its ability to attract and retain key officers. There is intense competition for the best people in the financial services industry, and there is no assurance that the Bank, or any entity it acquires, will be able to continue to attract and retain key officers.

Judicial and Regulatory Proceedings

The Bank takes reasonable measures to comply with the laws and regulations in effect in the jurisdictions where it operates. Should these measures prove ineffective, the Bank could be subject to judicial or regulatory decisions resulting in fines, damages, or other costs or to restrictions likely to adversely affect its net income and damage its reputation. The Bank may also be subject to litigation in the normal course of business. Although the Bank establishes provisions for the measures it is subject to under accounting requirements, actual losses resulting from such litigation could differ significantly from the recognized amounts, and unfavourable outcomes in such cases could have a significant adverse effect on the Bank's financial results. The resulting reputational damage could also affect the Bank's future business prospects. For additional information on this topic, see Note 27 to the consolidated financial statements.

Accounting Policies, Methods and Estimates Used by the Bank

The accounting policies and methods used by the Bank determine how the Bank reports its financial position and operating results and may require management to make estimates or rely on assumptions about matters that are inherently uncertain. Any changes to these estimates and assumptions may have a significant impact on the Bank's operating results and financial position.

Other Factors

Other factors that could affect the Bank's future results include amendments to tax legislation, unexpected changes in consumer spending and saving habits, the timely development and launch of new products and services, the ability to successfully align its organizational structure, resources and processes, the ability to activate a business continuity plan within a reasonable time, the potential impact of international conflicts or natural catastrophes on the Bank's activities, and the Bank's ability to foresee and effectively manage the risks associated with these factors through rigorous risk management.

Risk Management Framework

Risk is rigorously managed. That means it is identified, measured and controlled to ensure that the Bank's operations yield an adequate return for the level of risk assumed. Managing risk requires a solid understanding of every type of risk found across the Bank. In addition to providing assurance that risk levels do not exceed acceptable thresholds, effective risk management can be used to control the volatility of the Bank's results.

Despite the exercise of stringent risk management and the mitigation measures in place, risk cannot be suppressed entirely, and the residual risks may occasionally cause significant losses. In the normal course of business, the Bank is primarily exposed to the risks presented below.

Credit risk	Market risk	Funding and liquidity risk	Operational risk	Regulatory compliance risk	Reputation risk	Strategic risk	Environmental risk

To achieve its risk management objectives, the Bank relies on a risk management framework that combines the following components:

- risk management culture;
- risk appetite and reporting;
- enterprise-wide stress testing;
- governance structure;
- risk management policies;
- risk models governance and vetting framework;
- independent oversight by the Compliance Service;
- independent assessment by Internal Audit.

Risk Management Culture

The Bank's management continually promotes a risk management culture through internal communications. A balanced approach whereby business development initiatives are combined with a constant focus on sound risk management is advocated. In particular, risk is taken into consideration when preparing the segment's business plans, when analyzing strategic initiatives and when launching new products. The Bank's risk management culture is also strengthened by incentive compensation programs that are structured to reflect the Bank's risk appetite. In addition, all employees must complete mandatory annual regulatory compliance training focused on the Bank's Code of Conduct and Ethics and anti-money laundering and anti-terrorism financing efforts. Risk management training is also offered across all segments of the Bank.

Furthermore, to ensure the effectiveness of the existing risk management framework, the Bank has defined clear roles and responsibilities by reinforcing the concept of the three lines of defence. The Governance Structure section presented on the following pages defines this concept as well as the roles and responsibilities at all levels of the organization.

First Line of Defence
Business Units

- Identify, manage, assess and mitigate risks in day-to-day activities.
- Ensure activities are in alignment with the Bank's risk appetite and risk management policies.

Second Line of Defence
Risk Management and Oversight Functions

- Establish the enterprise-wide risk management framework and policies.
- Provide independent oversight of management practices and an independent challenge of the first line of defence.
- Promote an effective risk management culture throughout the Bank.
- Monitor and report on risk.

Third Line of Defence
Internal Audit

- Provide assurance to management and the Board on the overall effectiveness of the risk management policies, processes and practices, including the manner in which the first and second lines of defence reach their control and risk management objectives.

The following guiding principles support a strong risk culture:

- risk is everyone's business: business units, risk management and oversight functions as well as Internal Audit play an important role in ensuring an effective and robust risk management framework is in place;
- client-centric: having quality information is key to understanding our clients, effectively managing risk, and delivering excellent client service;
- enterprise-wide: an integrated view of risk is the basis for sound risk management and decision-making by management;
- human capital: the Bank's employees are engaged, experienced and have a high level of expertise; their curiosity supports continuous development and their rigour promotes a sound risk culture across the organization;
- fact-based: good risk management relies heavily on common sense and judgment and on advanced systems and models.

Risk Appetite and Reporting

Risk-taking is intrinsic to a financial institution's business. Business unit strategies have always—implicitly or explicitly—incorporated decisions about the amount of risk they are willing to assume. Risk appetite represents how much risk an organization is willing to assume to achieve its business strategy. The Bank cultivates a risk management culture that is aligned with its risk appetite, doing so by setting risk tolerance thresholds that determine its risk-taking capacity.

The Bank's risk appetite framework consists of principles, statements, metrics as well as targets and is reinforced by policies and limits. It is defined both quantitatively and qualitatively and requires:

- a target risk rating of at least A+ or the equivalent;
- a risk-reward balance;
- a stable risk profile;
- a strategic level of concentration aligned with approved targets;
- a strong capital position;
- a strong liquidity position;
- a low tolerance to operational, regulatory compliance and reputation risk;
- operational and information systems stability in both normal circumstances and crises.

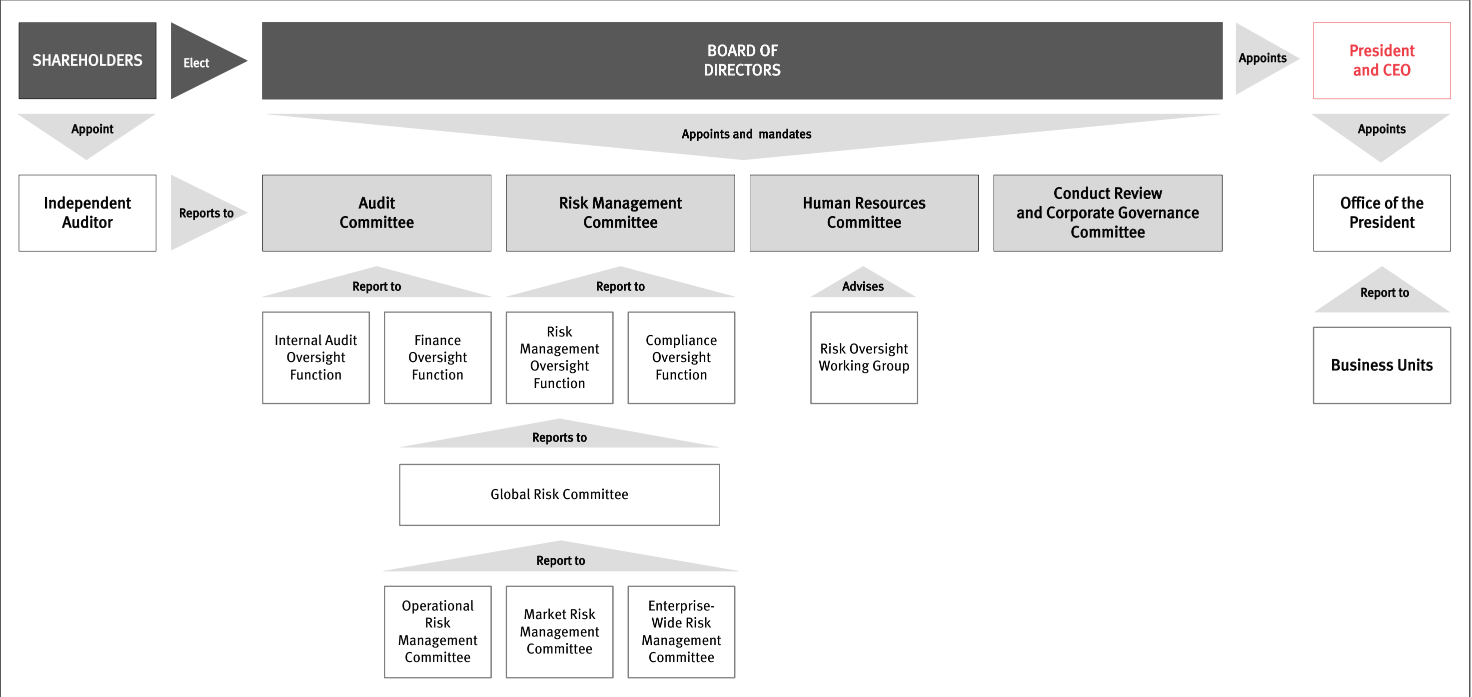
The Bank's management and business units are involved in the process for setting the risk appetite and are responsible for adequately monitoring the chosen key risk indicators. These needs are assessed by means of the enterprise strategic planning process. The risk indicators are reported on a regular basis to ensure an effective alignment of the Bank's risk profile to its risk appetite; otherwise, appropriate actions could be taken.

Enterprise-Wide Stress Testing

As part of a more extensive process aimed at ensuring that the Bank maintains adequate capital levels commensurate with its business strategy and risk appetite, an enterprise-wide stress testing program is in place at the Bank. Stress testing can be defined as a risk management method that assesses the potential effects—on the Bank's financial position, capital and liquidity—of a series of specified changes in risk factors, corresponding to exceptional but plausible events. The program supports management's decision-making process by identifying potential vulnerabilities for the Bank as a whole that are considered in setting limits as well as in longer term business planning. The scenarios and stress test results are reviewed by a stress testing oversight group and the Global Risk Committee and are approved by the Board. For additional information, see the Stress Testing and Crisis Scenarios headings of the credit, market and liquidity risk sections.

Governance Structure *

The following diagram shows the Bank's overall governance architecture and the governance relationships established for risk management. As the second line of defence, the Risk Management Group sets the risk management rules, policies and guidelines to which the business units must adhere and also ensures compliance therewith.



The Board of Directors (Board)[1]

The Board examines and approves the Bank's overall risk philosophy and risk appetite, acknowledges and understands the main risks faced by the Bank, and makes sure appropriate systems are in place to effectively manage and control those risks. It performs its mandate in this regard both directly and through its committees, particularly the Audit Committee, the Risk Management Committee, the Human Resources Committee and the Conduct Review and Corporate Governance Committee.

The Audit Committee[1]

The Audit Committee oversees the work of the internal auditor and the independent auditor, the financial reporting and analysis process, the Bank's internal controls, and the application of the policy for reporting irregularities related to accounting, internal accounting controls and other auditing matters.

The Risk Management Committee (RMC)[1]

The Risk Management Committee reviews the risk appetite framework, the main risk management policies as well as risk tolerance limits and recommends their approval by the Board. It ensures that appropriate resources, processes and procedures are in place to properly and effectively manage risk on an ongoing basis. Finally, it monitors the risk profile and risk trends of the Bank's activities and ensures alignment with the risk appetite.

The Human Resources Committee[1]

The Human Resources Committee examines and approves the Bank's total compensation policies and programs, taking into consideration the risk management framework, and recommends their approval to the Board. It sets annual objectives and key performance indicators for the President and Chief Executive Officer, recommends that they be approved by the Board, and evaluates the performance and achievements against these objectives and indicators. It recommends to the Board that it approve the compensation of the President and Chief Executive Officer, of the members of the Office of the President, and of the heads of the oversight functions. It also periodically reviews and examines the management succession plan.

The Conduct Review and Corporate Governance Committee[1]

The Conduct Review and Corporate Governance Committee makes sure that rules, procedures and governance structures are implemented and followed, oversees the processes for managing and monitoring related party transactions and evaluates the performance and effectiveness of the Board and its members.

(1) Additional information about the Bank's governance architecture can be found in the *Management Proxy Circular for the 2017 Annual Meeting of Holders of Common Shares*, which will soon be available on the Bank's website at nbc.ca and on SEDAR's website at sedar.com. The mandates of the Board and its committees are available in their entirety at nbc.ca.

The Office of the President and the Bank's Management

Composed of the President and Chief Executive Officer and the officers responsible for the Bank's main functions and business units, the Office of the President ensures that risk management is effective and aligned with the Bank's pursuit of its objectives and strategies. The Bank's management promotes the risk management culture Bank-wide and manages the primary risks to which it is exposed.

The Internal Audit Oversight Function

The Internal Audit Oversight Function is responsible for providing the Bank's Board and management with objective and independent assurance and advice on matters of governance, risk management and internal control. By deploying a systematic and a methodical approach, Internal Audit assesses the main processes and systems and formulates recommendations to promote the Bank's long-term strength.

The Finance Oversight Function

The Finance Oversight Function is responsible for optimizing management of financial resources and ensuring sound governance of financial information. It helps the business segments and support functions with their financial performance, ensures compliance with regulatory requirements, and carries out the Bank's reporting to shareholders and the external reporting of the various units, entities and subsidiaries of the Bank.

The Risk Management Oversight Function

The Risk Management Oversight Function is responsible for identifying, assessing and monitoring—independently and using an integrated approach—the various risks to which the Bank is exposed and for promoting a sound risk management culture. It helps management and the Board understand and monitor the main risks, and it also develops, maintains and communicates the risk appetite framework while ensuring the integrity and reliability of risk measures.

The Compliance Oversight Function

The Compliance Oversight Function is responsible for implementing a Bank-wide regulatory compliance risk management framework by relying on an organizational structure that includes functional links to the main business segments. It also exercises independent oversight of the compliance of the Bank and its subsidiaries with policies and procedures.

The Risk Oversight Working Group

The working group that monitors compensation-related risks supports the Human Resources Committee in its compensation risk oversight role. It's a three-member group consisting of the Executive Vice-President of Risk Management, the Chief Financial Officer and Executive Vice-President of Finance and Treasury, and the Executive Vice-President of Human Resources and Corporate Affairs. The working group helps to ensure that compensation policies and programs do not unduly encourage senior management members, officers, material risk takers or bank employees to take risks beyond the Bank's risk tolerance thresholds. As part of that role, it ensures that the Bank is adhering to the *Corporate Governance Guidelines* issued by OSFI and to the *Principles for Sound Compensation Practices* issued by the Financial Stability Board, for which the Canadian implementation and monitoring is conducted by OSFI. The Board's Risk Management Committee also reviews the reports presented by the working group to the Human Resources Committee.

The Global Risk Committee (GRC)

The Global Risk Committee defines the parameters of the policies that determine risk tolerance and the overall risk strategy, for the Bank and its subsidiaries as a whole, and sets limits as well as tolerance and intervention thresholds enabling the Bank to properly manage the main risks to which it is exposed. The committee approves and monitors all large credit facilities. It also recommends for Board approval the Bank's risk philosophy, risk appetite and risk profile management. The Operational Risk Management Committee, the Market Risk Management Committee, and the Enterprise-Wide Risk Management Committee presented in the governance structure diagram above are the primary committees reporting to the Global Risk Committee. The Global Risk Committee also carries out its mandate through the Senior Complex Valuation Committee, the Committee on Banks, the Models Oversight Committee and the Product and Activity Review Committee.

The Business Units

As the first line of defence, the business units manage risks related to their operations within established limits and in accordance with risk management policies by identifying, analyzing and understanding the risks to which they are exposed and implementing risk mitigation mechanisms. The management of these units must ensure that employees are adhering to current policies and limits.

Risk Management Policies

Risk management policies and the related standards and procedures are the essential elements of the risk management framework. They set out responsibilities, define and describe the main activity-related risks, specify the requirements that the business units must meet in assessing and managing risk, stipulate the authorization process for risk-taking and set the risk limits to be adhered to. These policies cover all the main risks in the Bank, are reviewed regularly to ensure they are still relevant given changes in the markets and in the business plans of the Bank's business units, and apply to the entire Bank and its subsidiaries. Other policies, standards and procedures complement the main policies and cover more specific aspects of risk management, such as business continuity, the launch of new products, initiatives or activities, or financial instrument measurement.

Risk Models Governance and Vetting Framework

In most cases, the Bank's exposure to the main risks, such as credit risk and market risk, is assessed through the use of models. The key components of the Bank's model vetting governance framework are as follows: the model risk management policies, the Models Oversight Committee, and the model vetting group. The policies set the rules and guidelines applicable to both the model development and the model vetting groups. The scope of models covered is wide, ranging from the market risk pricing models and automated credit decision-making models to the business risk capital model, including models used for regulatory capital and stressed capital purposes.

The Bank makes increasing use of models to guide enterprise-wide risk management, financial markets strategy, economic and regulatory capital allocation, global credit risk management, wealth management and profitability measures. Models have in fact become a standard in risk management. This stresses the growing importance of model risk for banks, hence the implementation of a rigorous policy and sound model vetting processes to ensure models can be used appropriately and efficiently to manage risks.

One of the cornerstones of the Bank's policies is the general principle that all models that are deemed important for the Bank or that are used for regulatory capital purposes require independent vetting. To that effect, all models used by the Bank are classified in terms of their risk level (low, medium or high). Based on that assessment, the Bank applies strict guidelines with respect to model review requirements and the minimum frequency of such reviews. The Bank believes that the best defence against "model risk" is the implementation of a robust development and validation framework.

Independent Oversight by the Compliance Service

Compliance is an independent oversight function within the Bank. Its Senior Vice-President has a direct functional link to the Chair of the RMC and direct access to the President and Chief Executive Officer and can communicate directly with officers and directors of the Bank and its subsidiaries and foreign centres. The Compliance team has unrestricted access to files, reports, records and data and can require employees of the Bank and its subsidiaries and foreign centres to provide any information deemed necessary for effective oversight.

Business unit managers must oversee the implementation of mechanisms for the daily control of regulatory compliance risks arising from the operations under their responsibility. Compliance exercises independent oversight in order to assist managers in effectively managing these risks and to obtain reasonable assurance that the Bank is compliant with the regulatory requirements in effect where it does business, both in Canada and internationally.

The control framework covers the following:

- identification, evaluation, communication, maintenance and updating of regulatory requirements;
- information gathering and monitoring of regulatory changes;
- identification of the business units affected by these requirements;
- documentation of compliance and regulatory requirement controls applicable to daily operations, including monitoring procedures, remedial action plans and periodic reports produced by the business units;
- continuous training for all employees;
- information exchange between the business segments, business units and Compliance;
- independent oversight to detect shortcomings or non-compliance in the application of existing policies and procedures;
- quarterly and annual reporting to the RMC on the main results of compliance oversight;
- annual certification process.

Independent Assessment by Internal Audit

Internal Audit is an independent objective function within the Bank. It provides assurance as to the Bank's level of proficiency over its activities, advises on how to improve those activities and contributes to the creation of added value. It helps the Bank accomplish its objectives by applying a systematic, methodical approach for assessing and improving the effectiveness of the main governance, risk management, and internal control processes and systems. Internal Audit is mandated to provide the Board, through the Audit Committee, and the Office of the President with an evaluation in that respect.

The Senior Vice-President of Internal Audit reports to the Chair of the Audit Committee. Her independence is ensured through an administrative relationship with the President and Chief Executive Officer, and she may, at any time, call an unscheduled Audit Committee meeting.

As Internal Audit is not mandated to institute internal control mechanisms but rather to evaluate their effectiveness, it has no direct responsibility or authority over the activities it reviews. Whenever recommendations are issued, Internal Audit is mandated to independently evaluate the appropriateness of the measures taken by managers to resolve issues and to ensure rigorous follow-up.

Internal Audit has unrestricted access to all business segments, corporate units and subsidiaries of the Bank.

Credit Risk Management

Credit risk is the risk of incurring a financial loss if an obligor does not fully honour its contractual commitments to the Bank. Obligors may be borrowers, issuers, counterparties or guarantors. Credit risk is the most significant risk facing the Bank in the normal course of business. The Bank is exposed to credit risk not only through its direct lending activities and transactions but also through commitments to extend credit, letters of guarantee, letters of credit, over-the-counter derivatives trading, available-for-sale debt securities, securities purchased under reverse repurchase agreements, deposits with financial institutions, brokerage activities, and transactions carrying a settlement risk for the Bank such as irrevocable fund transfers to third parties via electronic payment systems.

Governance

A policy framework centralizes the governance of activities that generate credit risk for the Bank and is supplemented by a series of subordinate internal or sectoral policies and guidelines on specific management issues such as credit limits, collateral requirements and risk quantification or issues that provide more thorough guidance for given business segments.

For example, the institutional activities of the Bank and its subsidiaries on financial markets and international commercial transactions are governed by business unit directives that set out standards adapted to the specific environment of these activities. This also applies to retail brokerage subsidiaries. In isolated cases, a business unit or subsidiary may have its own credit policy, and that policy must always fall within the spirit of the Bank's policy framework and be reviewed and approved by the management of the Risk Management Group. The Risk Management Group defines the scope of the universe of subsidiaries carrying significant credit risks and the magnitude of the risks incurred.

Credit risk is controlled through a rigorous process that comprises the following elements:

- credit application;
- credit risk rating and assessment;
- assessment of capital at risk;
- stress testing and crisis scenarios;
- credit granting process;
- risk mitigation;
- follow-up of monitored accounts and recovery;
- identification of impaired loans and provisioning for credit losses.

Credit Risk Assessment

Before a sound and prudent credit decision can be taken, the borrower's or counterparty's credit risk must be accurately assessed. This is the first step in processing credit applications. Each application is analyzed and assigned one of 19 grades on a scale of 1 to 10 using a credit rating system developed by the Bank for all portfolios exposed to credit risk. As each grade corresponds to a borrower's, counterparty's or third party's probability of default, the Bank can determine the credit risk. The credit risk assessment method varies according to portfolio type.

The main parameters used to measure the credit risk of loans outstanding and undrawn amounts are as follows:

- probability of default (PD), which is the probability that the obligor will default within one year;
- loss given default (LGD), which represents the magnitude of the expected loss from the obligor's default, expressed as a percentage of exposure at default (EAD);
- EAD, which is the estimated amount potentially drawn at the time of the obligor's default.

The methodology as well as the data and the downturn periods used to estimate LGD are as follows:

AIRB APPROACH	DATA	DOWNTURN PERIOD	METHODOLOGY FOR CALCULATING LGD
Retail	The Bank's internal historical data from 1996 to 2014	1996-1998, 2000-2002 October 2008 – December 2009	LGD based on the Bank's historical recoveries and losses
Corporate	The Bank's internal historical data from 2000 to 2014	2000-2003 and 2008-2009	LGD based on the Bank's historical recoveries and losses
Sovereign	Moody's observed default price of bonds, from 1983 to 2010 S&P rating history from 1975 to 2011	No specific period	Based on implied market LGD using observed bond price decreases following the issuer's default
Financial institutions	Global Credit Data Consortium loss and recovery database from 1998 to 2014	1991-1992, 1994, 1998, 2001-2002 and 2008-2009	Model for predicting LGD based on different issue- and issuer-related risk drivers

Personal Credit Portfolios

This category comprises portfolios of residential mortgage loans, consumer loans and loans to certain small businesses. A risk analysis based on loan grouping in pools of homogeneous obligor and product profiles is used for overall management of personal credit portfolios. This personal credit assessment approach, which has proven particularly effective for estimating loan defaults and losses, takes a number of factors into account, namely:

- behaviour scoring;
- loan product characteristics;
- collateral provided;
- the length of time on the Bank's balance sheet;
- loan status (active, delinquent or defaulted).

This mechanism provides adequate risk measurement inasmuch as it effectively differentiates risk levels by pool. Therefore, the results are periodically reviewed and, if necessary, adjustments are made to the models. Obligor migrations between pools are among the factors considered in the credit risk assessment.

Loan pools are also established based on probability of default, loss given default and exposure at default, which are measured based on the characteristics of the obligor and the transaction itself. The credit risk of these portfolios is estimated using credit scoring models that determine the obligor's probability of default. Loss given default is estimated based on transaction-specific factors such as loan product characteristics (for example, a line of credit versus a term loan), loan-to-value ratio and types of collateral.

Under the Bank's standards applicable to default-risk rating and facility-risk rating and according to its risk review, renewal and quantification standards, default risk ratings must be reviewed annually. Personal credit risk assessments are based on a group of borrowers with similar credit histories and behaviour profiles.

The credit scoring models are also used to grant new credit. These models use proven statistical methods that measure applicants' characteristics and history based on internal and external historical information to estimate the applicant's future credit behaviour and assign a probability of default. The underlying data include client information such as current and past employment, historical loan data in the Bank's management systems and information from external sources such as credit rating agencies.

The Bank also uses behaviour scoring models to manage and monitor current commitments. The risk assessment is based on statistical analyses of the past behaviour of obligors with which the Bank has a long-term relationship in an effort to predict their future behaviour. The underlying information includes the obligor's cash flows and borrowing trends. Information on characteristics that determine behaviour in these models also comes from both internal sources on current commitments and external sources.

Business and Government Credit Portfolios

This category comprises business (other than some small businesses that are classified in personal credit portfolios), government and financial institution credit portfolios.

These credit portfolios are assigned a risk rating based on a detailed individual analysis of the financial and non-financial aspects of the borrower, including the borrower's financial strength, sector of economic activity, competitive ability, access to capital and management quality. The Bank has risk-rating tools and models enabling it to specifically assess the risk represented by an obligor in relation to its industry and peers. The models used are adapted to the obligor's broad sector of activity. Models are in place for nine sectors: business/commercial, large business, banks-brokerage, sovereigns, investment funds, energy, real estate, agriculture and insurance.

This risk assessment method assigns a default risk rating to an obligor that reflects its credit quality. To each default credit risk rating corresponds a probability of default (see the following table). This credit quality classification enables the Bank to adequately differentiate its respective assessments of an obligor's ability to meet its contractual obligations. Default risk ratings are assigned according to an assessment of the obligors' commercial and financial risks, based on a solvency review. Various risk quantification models, described below, are used to perform this assessment.

The business and government default risk-rating scale used by the Bank is similar to the systems used by major external rating agencies. The complete default risk rating scale comprised of 19 grades is presented in the Supplementary Regulatory Capital Disclosure report, which is available on the Bank's website at nbc.ca. The following table presents a grouping of the grades by major risk category and compares them with the ratings of two major rating agencies.

Internal Default Risk Ratings – Business and Government *

Ratings	PD (%) – Corporate and Financial institutions	PD (%) – Sovereign	Standard & Poor's	Moody's	Description[1]
1–2.5	0.000–0.102	0.000–0.059	AAA to A-	Aaa to A3	Excellent
3–4	0.103–0.461	0.060–0.341	BBB+ to BBB-	Baa1 to Baa3	Good
4.5–6.5	0.462–5.624	0.342–6.275	BB+ to B+	Ba1 to B1	Satisfactory
7–7.5	5.625–15.283	6.276–20.098	B to CCC+	B2 to Caa1	Special mention
8–8.5	15.284–99.999	20.099–99.999	CCC & CCC-	Caa2 & Caa3	Substandard
9–10	100	100	CC, C & D	Ca, C & D	Default

(1) Additional information is provided in the table on page 59.

The Bank also uses individual assessment models by industry to assign a risk rating to the credit facility based on the collateral and guarantees the obligor is able to provide and, in some cases, based on other factors.

The Bank consequently has a bi-dimensional risk-rating system that, using internal and external historical data, establishes a default risk rating for each obligor, and models that assign a risk rating to the credit facility that is independent of the risk rating assigned to the obligor.

The Bank's default, and in some cases, facility risk-rating systems and the associated risk parameters are used to estimate expected and unexpected losses and risk-based pricing as well as to establish counterparty credit concentration limits, assess economic capital and generally manage credit portfolios.

Validation

The Risk Management Group monitors the effectiveness of the risk-rating systems and associated parameters, which are also reviewed regularly in accordance with the Bank's policies.

Backtesting is done at regular intervals to validate the effectiveness of the models used to estimate probability of default, loss given default and exposure at default. For probability of default in particular, this backtesting takes the form of sequentially applied statistical tests designed to assess the following criteria:

- the model's discriminatory power;
- overrides;
- model calibration;
- the stability of the model's output.

The credit risk quantification models are developed and tested by a team of specialists and their performance is monitored by the applicable business units and related credit risk management services. New models are validated by a unit that is independent of both the specialists that developed the model and the business units concerned, and approved through an escalation process established by the Model Risk Management Policy. Furthermore, new models or changes to existing models that markedly impact regulatory capital must be approved by the Board before being submitted to the regulatory agencies, and a summary report of all changes to the models is submitted to the RMC once a year.

The default risk-rating systems, methods and models are also subject to periodic independent validation as often as required given the inherent risk of the activity. Models that have a significant impact on regulatory capital must be reviewed regularly, thereby further raising the certainty that these quantification mechanisms are working as expected. The key aspects to be validated are factors allowing accurate risk classification by level, adequate quantification of exposure, use of assessment techniques that include external factors such as economic conditions and credit status and, lastly, compliance with internal policies and regulatory provisions. Each year, the Risk Management Group presents a summary report on the validations to the RMC.

The Bank's credit risk assessment and rating systems are overseen by the Models Oversight Committee, the GRC and the RMC, and are an integral part of a comprehensive Bank-wide credit risk oversight framework. Along with the above-mentioned elements, the Bank documents and periodically reviews the policies, definitions of responsibilities, resource allocation and existing processes.

Personal Credit Portfolio Subject to the AIRB Approach *

The following table presents the credit quality of the personal credit portfolio subject to the AIRB Approach, according to the internal risk-rating categories assigned to borrowers.

As at October 31
(millions of Canadian dollars)

					Exposure at default	
					2016	2015
	Probability of default (%)	Residential mortgage[1]	Qualifying revolving retail[2]	Other retail[3]	Total	Total
Excellent	0.000–0.144	21,560	2,899	2,284	26,743	26,282
Good	0.145–0.506	15,917	1,068	2,799	19,784	18,938
Satisfactory	0.507–2.681	5,678	1,247	4,014	10,939	9,945
Special mention	2.682–9.348	901	402	787	2,090	2,198
Substandard	9.349–99.999	319	79	195	593	610
Default	100	133	21	106	260	275
		44,508	5,716	10,185	60,409	58,248

(1) Includes home equity lines of credit.
(2) Includes lines of credit and credit card receivables.
(3) Includes consumer loans, credit card receivables, certain SME loans, and other personal loans.

Business and Government Credit Portfolio Subject to the AIRB Approach *

The following table presents the credit quality of the business and government credit portfolio subject to the AIRB Approach, according to the internal risk-rating categories assigned to borrowers, as defined in the table on page 57.

As at October 31
(millions of Canadian dollars)

				Exposure at default	
				2016	2015
	Drawn[1]	Undrawn commitments[2]	Other exposures[3]	Total	Total
Excellent	25,618	5,171	50,316	81,105	78,616
Good	18,237	8,372	26,229	52,838	45,321
Satisfactory	17,990	4,032	6,603	28,625	26,131
Special mention	2,517	456	244	3,217	2,681
Substandard	93	7	1	101	106
Default	337	3	5	345	278
	64,792	18,041	83,398	166,231	153,133

(1) Amounts drawn represent certain deposits with financial institutions, available-for-sale debt securities, gross loans, customers' liability under acceptances and certain other assets.
(2) Undrawn commitments represent unused portions of authorized credit facilities in the form of loans, acceptances, letters of guarantee and documentary letters of credit, excluding investment banking activities.
(3) Other exposures represent securities purchased under reverse repurchase agreements and securities borrowed as well as securities sold under repurchase agreements and securities loaned, forwards, futures, swaps and options and also include letters of guarantee, documentary letters of credit, and securitized assets that represent the Bank's commitment to make payments in the event a client cannot meet its financial obligations to third parties.

Assessment of Capital at Risk

The assessment of the Bank's capital at risk, or economic capital, is based on the credit risk assessments of borrowers. These two activities are therefore interlinked. The different models used to assess the credit risk of a given portfolio type also enable the Bank to determine the default correlation among borrowers. This information is a critical component in the evaluation of potential losses for all portfolios carrying credit risk. Potential losses, whether expected or not, are based on past loss experience, portfolio monitoring, market data and statistical modelling. Expected and unexpected losses are factors in the assessment of capital at risk for each business segment. The main risk factors are as follows:

- probability of default;
- balance outstanding at the time of default;
- expected loss in the event of default;
- correlation between transactions;
- term of credit commitments;
- impact of economic and sector-based cycles on asset quality.

Stress Testing and Crisis Scenarios

The Bank carries out stress tests to evaluate its sensitivity to crisis situations in certain activity sectors and key portfolios. A global stress test methodology covers most business, government, and personal credit portfolios to provide the Bank with an overview of the situation. By simulating specific scenarios, these tests enable the Bank to measure the level of regulatory capital needed to absorb potential losses and to determine the impact on its solvency. In addition, these tests contribute to portfolio management as they influence the determination of concentration limits by borrower, product or business sector.

Mortgage Loan Underwriting

To mitigate the impact of an economic slowdown and ensure the long-term quality of its portfolio, the Bank uses sound risk management when granting residential mortgages to confirm: (i) the borrower's intention to meet its financial obligations, (ii) the borrower's ability to repay its debts and (iii) the quality of the collateral. In addition, the Bank takes a prudent approach to client qualification by using, for example, a higher interest rate for terms less than five years to mitigate the risk of short- or medium-term rate increases.

Nonetheless, the risk of economic slowdown could adversely affect the profitability of the mortgage portfolio. In stress test analyses, the Bank considers a variety of scenarios to measure the impact of adverse market conditions. In such circumstances, our analyses show significantly higher loan losses, which would decrease profitability and reduce the Bank's capital ratios.

Credit-Granting Process

Credit-granting decisions are based first and foremost on the results of the risk assessment. Aside from a client's solvency, credit-granting decisions are also influenced by factors such as available collateral, transaction compliance with policies, standards and procedures, and the Bank's overall risk-adjusted return objective. Each credit-granting decision is made by authorities within the risk management teams and management who are independent of the business units and are at a reporting level commensurate with the size of the proposed credit transaction and the associated risk.

Decision-making authority is determined in compliance with the delegation of authority set out in the Credit Risk Management Policy. A person in a senior position in the organization approves credit facilities that are substantial or carry a higher risk for the Bank. The GRC approves and monitors all substantial credit facilities. Credit applications that exceed management's latitudes are submitted to the Board for approval. The credit-granting process demands a high level of accountability from managers, who must proactively manage the credit portfolio.

Risk Mitigation

The Bank also controls credit risk using various risk mitigation techniques. In addition to the standard practice of requiring collateral to guarantee repayment of the credit it grants, the Bank also uses protection mechanisms such as credit derivative financial instruments, syndication and loan assignments as well as an orderly reduction in the amount of credit granted.

The most common method used to mitigate credit risk is to obtain quality collateral from borrowers. Obtaining collateral cannot replace a rigorous assessment of a borrower's ability to meet its financial obligations, but, beyond a certain risk threshold, it is an essential complement. Collateral is not required in all cases; it depends upon the level of risk presented by the borrower and the type of loan granted. However, if the level of risk to the Bank is considered high, collateral will likely be required. The legal validity and enforceability of any collateral obtained and the Bank's ability to correctly and regularly measure the collateral's value are critical for this mechanism to play its proper role in risk mitigation. The Bank has established specific requirements in its internal policies with respect to the appropriate legal documentation and assessment for the kinds of collateral that business units may require to guarantee loans granted. The categories of eligible collateral and the lending value of the collateralized assets have also been defined by the Bank. For the most part, they include the following asset categories as well as guarantees (whether secured by collateral or unsecured) and government and bank guarantees:

- accounts receivable;
- inventories;
- machinery and equipment and rolling stock;
- residential and commercial real estate, office buildings and industrial facilities;
- cash and marketable securities.

Portfolio Diversification and Management

The Bank is exposed to credit risk, not only through outstanding loans and undrawn amounts of commitments to a particular borrower but also through the sectoral distribution of the outstanding loans and undrawn amounts and through the exposure of its various credit portfolios to geographical, concentration and settlement risks.

The Bank's approach to controlling these diverse risks begins with optimizing the diversification of its exposures. Measures designed to maintain a healthy degree of diversification of credit risk in its portfolios are set out in the Bank's internal policies and procedures. These instructions are mainly reflected in the application of various exposure limits: credit concentration limits by counterparty and credit concentration limits by business sector, country, region and type of financial instrument. Compliance with these limits, particularly exceptions, is monitored through periodic reports submitted by the Risk Management Group's officers to the Board.

The criteria established for portfolio diversification and the specific limits set for economic, industrial or geographical sectors are based on findings of sector-based studies and analyses conducted by economists and the Risk Management Group and are approved by the Board. Continuous analyses are performed in order to anticipate problems with a sector or borrower before they materialize as defaulted payments.

Other Risk Mitigation Methods

Credit risk mitigation measures for transactions in derivative financial instruments, which are regularly used by the Bank, are described in detail in the Counterparty Risk section.

Credit Derivative Financial Instruments and Financial Guarantee Contracts

The Bank also reduces credit risk by using the protection provided by credit derivative financial instruments such as credit default swaps. When the Bank acquires credit protection, it pays a premium on the swap to the counterparty in exchange for the counterparty's commitment to pay if the underlying entity defaults or another event involving the underlying entity and covered by the legal agreement occurs. Since, like borrowers, providers of credit protection must receive a default risk rating, the Bank's standards set out all the criteria under which a counterparty may be judged eligible to mitigate the Bank's credit risk. The Bank may also reduce its credit risk by entering into financial guarantee contracts whereby a guarantor indemnifies the Bank for a loss resulting from an obligor failing to make a payment when due in accordance with the contractual terms of a debt instrument.

Loan Syndication

The Bank has developed specific instructions on the appropriate objectives, responsibilities and documentation requirements for loan syndication.

Follow-Up of Monitored Accounts and Recovery

Credit granted and borrowers are monitored on an ongoing basis and in a manner commensurate with the related risk. Loan portfolio managers use an array of intervention methods to conduct a particularly rigorous follow-up on files that show risk of default. When loans continue to deteriorate and there is an increase in risk to the point where monitoring has to be increased, a group specialized in managing problem accounts steps in to maximize collection of the disbursed amounts and tailor strategies to these accounts.

In these cases, loan portfolio managers prepare and submit, to the credit department, a detailed monitoring report each month to track the status of at-risk obligors and the corrective measures undertaken. The management of each credit department concerned performs follow-ups on the reports, and each quarter a credit monitoring committee meets to review the action plans and monitoring reports of obligors that have commitments of $3 million or more. The authority to approve allowances for credit losses is attributed using limits delegated on the basis of hierarchical level under the Credit Risk Management Policy.

Information on the recognition of impaired loans and allowances for credit losses are presented in Note 1 to the consolidated financial statements.

Forbearance and Restructuring

Situations where a business or retail obligor begin showing clear signs of potential insolvency are managed on a case-by-case basis and require the use of judgment. The Loan Work Out Policy sets the principles applicable in such situations to guide loan restructuring decisions and identify situations where distressed restructuring applies. A distressed restructuring situation occurs when the Bank, for economic or legal reasons related to the obligor's financial difficulties, grants the obligor a special concession that is contrary to the Bank's policies. Such concessions could include a lower interest rate, waiver of principal and extension of the maturity date.

The Bank has established a management framework for commercial and corporate obligors that represent higher-than-normal risk of default. It outlines the roles and responsibilities of loan portfolio managers with respect to managing high-risk accounts and the responsibilities of the Work Out units and other participants in the process. Lastly, the Credit Risk Management Policy and a management framework are used to determine the authorization limits for distressed restructuring situations. During fiscal years 2016 and 2015, the amount of distressed loan restructurings was not significant.

Counterparty Risk

Counterparty risk is a credit risk that the Bank incurs on various types of transactions involving financial instruments. The most significant risks are those it faces when it trades derivative financial instruments with counterparties on the over-the-counter market or when it purchases securities under reverse repurchase agreements or sells securities under repurchase agreements. Securities lending transactions and securities brokerage activities involving derivative financial instruments are also sources of counterparty risk. Note 17 to the consolidated financial statements provides a complete description of the credit risk for derivative financial instruments by type of traded product. The Risk Management Group has developed models by broad category of financial instrument through which it applies an advanced methodology for calculating the Bank's credit risk exposure and economic capital. The exposures are subject to limits. These two elements are established based on the potential volatility of the underlying assets until maturity of the contract.

Counterparty obligations related to the trading of contracts on derivative financial instruments, securities lending transactions and reverse repurchase agreements are frequently subject to credit risk mitigation measures. The mitigation techniques are somewhat different from those used for loans and advances and depend on the nature of the instrument or the type of contract traded. The most widely used measure is the signing of master agreements: the *International Swaps & Derivatives Association, Inc.* (ISDA) master agreement, the *Global Master Repurchase Agreement* (GMRA) and the *Global Master Securities Lending Agreement* (GMSLA). These agreements make it possible, in the event of default, insolvency or bankruptcy of one of the contracting parties, to apply full netting of the gross amounts of the market values for each of the transactions covered by the agreement and in force at the time of default. The amount of the final settlement is therefore the net balance of gains and losses on each transaction, which reduces exposure when a counterparty defaults. The Bank's policies require that an ISDA, GMRA, or GMSLA agreement be signed with most trading counterparties to derivatives, foreign exchange forward contracts, lending transactions and reverse repurchase agreements.

Another mechanism for reducing credit risk on derivatives and foreign exchange forward contracts complements the ISDA master agreement in many cases and provides the Bank and its counterparty (or either of the parties, if need be) with the right to request collateral from the counterparty when the net balance of gains and losses on each transaction exceeds a threshold defined in the agreement. These agreements, also known as Credit Support Annexes (CSAs), are common between financial institutions active in international financial markets since they limit credit risk while providing traders with additional flexibility to continue trading with the counterparty. The Bank often uses this type of legal documentation in transactions with financial institutions and governments. For business transactions, the Bank prefers to use internal mechanisms set out in the credit agreements. The Bank's internal policies set the conditions governing the implementation of such mitigation methods.

Requiring collateral as part of a securities lending transaction or reverse repurchase agreement is not solely the result of an internal credit decision. In fact, it is a mandatory market practice imposed by self-regulating organizations in the financial services sector such as the Investment Industry Regulatory Organization of Canada.

The Bank also has policies and guidelines governing its own collateral pledged to counterparties, given the potential impact of such asset transfers on its liquidity. In accordance with its Liquidity, Funding & Pledging Policy, the Bank conducts simulations of potential counterparty collateral claims under CSAs in effect, in the event of a Bank downgrade or other unlikely occurrences. The simulations are based on various Bank downgrading scenarios or market value fluctuations of transactions covered by CSAs.

The Bank identified circumstances in which it is likely to be exposed to wrong-way risk, which is generally associated with exposure to counterparty risk and increases as the counterparty's probability of default increases (unfavourable positive correlation). A common wrong-way risk arises from the trading of derivatives contracts with counterparties where the underlying assets may include equity securities issued by those counterparties.

Settlement Risk

Settlement risk potentially arises from transactions that feature reciprocal delivery of cash or securities between the Bank and a counterparty. Foreign exchange contracts are an example of transactions that can generate significant levels of settlement risk. However, the implementation of multilateral settlement systems that allow settlement netting among participating institutions has contributed greatly to reducing the risks associated with the settlement of foreign exchange transactions among banks. The Bank also uses financial intermediaries to have access to established clearing houses in order to minimize settlement risk for certain financial derivative transactions. In some cases, the Bank may have direct access to established clearing houses for settling financial transactions such as repurchase agreements or reverse repurchase agreements. In addition, certain derivative financial instruments traded over the counter are settled directly or indirectly by central counterparties. For additional information, see the table that presents notional amounts in Note 17 to the consolidated financial statements.

There are several other types of transactions that may generate settlement risk, in particular the use of certain electronic fund transfer services. This risk refers to the possibility that the Bank may make a payment or settlement on a transaction without receiving the amount owed from the counterparty, and with no opportunity to recover the funds delivered (irrevocable settlement).

The ultimate means for completely eliminating such a risk is for the Bank to complete no payments or settlements before receiving the funds due from the counterparty. Such an approach cannot, however, be used systematically. For several electronic payment services, the Bank is able to implement mechanisms that allow it to make its transfers revocable or to debit the counterparty in the amount of the settlements before it makes its own transfer. On the other hand, the nature of transactions in financial instruments makes it impossible for such practices to be widely used. For example, on foreign exchange transactions involving a currency other than the U.S. dollar, time zone differentials impose strict payment schedules on the parties. The Bank cannot unduly postpone a settlement without facing significant penalties, due to the large size of amounts involved.

The most effective way for the Bank to control settlement risks, both for financial market transactions and irrevocable transfers, is to impose internal risk limits based on the counterparty's ability to pay.

The amounts shown in the following tables represent the Bank's maximum exposure to credit risk as at the financial reporting date without taking into account any collateral held or any other credit enhancements. These amounts do not take into account allowances for credit losses nor amounts pledged as collateral. The tables also exclude equity securities.

Maximum Credit Risk Exposure Under the Basel Asset Categories *

(millions of Canadian dollars)						As at October 31, 2016
	Drawn	Undrawn commitments	Repo-style transactions[1]	OTC derivatives	Other off-balance-sheet items[2]	Total
Retail						
Residential mortgage	40,600	5,978	–	–	–	46,578
Qualifying revolving retail	2,795	2,921	–	–	–	5,716
Other retail	13,980	1,301	–	–	93	15,374
	57,375	10,200	–	–	93	67,668
Non-retail						
Corporate	40,956	14,416	14,418	27	2,890	72,707
Sovereign	23,068	3,623	30,559	328	135	57,713
Financial institutions	4,074	252	36,835	324	609	42,094
	68,098	18,291	81,812	679	3,634	172,514
Trading portfolio	–	–	–	9,623	–	9,623
Securitization	616	–	–	–	3,452	4,068
Total – Gross credit risk	126,089	28,491	81,812	10,302	7,179	253,873
Standardized Approach	10,458	277	2,294	282	491	13,802
AIRB Approach	115,631	28,214	79,518	10,020	6,688	240,071
Total – Gross credit risk	126,089	28,491	81,812	10,302	7,179	253,873

(millions of Canadian dollars)						As at October 31, 2015
	Drawn	Undrawn commitments	Repo-style transactions[1]	OTC derivatives	Other off-balance-sheet items[2]	Total
Retail						
Residential mortgage	38,784	5,647	–	–	–	44,431
Qualifying revolving retail	2,708	2,490	–	–	–	5,198
Other retail	13,736	1,302	–	–	14	15,052
	55,228	9,439	–	–	14	64,681
Non-retail						
Corporate	38,859	13,344	3,604	6	2,616	58,429
Sovereign	21,026	3,985	9,833	616	124	35,584
Financial institutions	2,139	277	59,420	505	692	63,033
	62,024	17,606	72,857	1,127	3,432	157,046
Trading portfolio	–	–	–	10,318	–	10,318
Securitization	646	–	–	–	2,336	2,982
Total – Gross credit risk	117,898	27,045	72,857	11,445	5,782	235,027
Standardized Approach	9,074	339	496	525	431	10,865
AIRB Approach	108,824	26,706	72,361	10,920	5,351	224,162
Total – Gross credit risk	117,898	27,045	72,857	11,445	5,782	235,027

(1) Securities purchased under reverse repurchase agreements and sold under repurchase agreements as well as securities loaned and borrowed.
(2) Letters of guarantee, documentary letters of credit and securitized assets that represent the Bank's commitment to make payments in the event that a client cannot meet its financial obligations to third parties.

Market Risk Management

Market risk is the risk of losses in on- and off-balance-sheet positions arising from movements in market parameters.

The Bank is exposed to market risk through its participation in market making, trading, investing and asset/liability management activities. Trading and market making activities involve taking positions, particularly on various instruments such as bonds, shares, currencies, commodities or derivative financial instruments. The Bank is exposed to non-trading market risk through its asset/liability management portfolios and its short-term funding and investment portfolios.

Market risk comes from a number of factors, the most important of which are:

- interest rate risk: relates to changes in the term structure of interest rates of financial instruments such as bonds, money market instruments and derivative financial instruments;
- foreign exchange risk: relates to changes in foreign exchange rates of financial instruments such as investments in foreign subsidiaries, foreign currency denominated loans and securities, future cash flows in foreign currencies and derivative financial instruments;
- equity risk: relates to changes in overall equity prices (general equity risk) or in individual characteristics that are specific to an entity (equity-specific risk) for financial instruments such as common shares and options;
- commodity risk: relates to changes in commodity prices of financial instruments in exchange trading or over-the-counter trading, involving either physical trading or derivatives trading of commodities;
- traded credit risk: relates to changes in the creditworthiness of all issuers (general traded credit risk) or in characteristics of an issuer (traded credit issuer-specific risk) relating mainly to the Bank's portfolios of debt securities and credit derivatives, whose value could be adversely affected by changes in credit spreads, by credit migration or by defaults;
- implied correlation risk: relates to changes in the implied correlations between two or more risk factors found primarily in complex derivative financial instruments with several correlated risk factors;
- market liquidity risk: relates to a significant decrease or, at worst, a halt in the level of expected market activity for a specific market or for a variety of instruments, thereby making the instruments concerned less liquid or illiquid. This exposes the Bank to losses due to the inability to execute its transactions at the prevailing prices, which may not represent the true price at which the position can be fully unwound. Almost all traded instruments are exposed to this type of risk depending mainly on frequency and volume of transactions;
- portfolio diversification and hedging risk (basis risk): relates to changes in correlations realized between two or more risk factors. Adverse changes in realized correlations can reduce the portfolio diversification benefit in the sense that several of the positions could have higher correlation than expected, giving rise to simultaneous losses. In addition, adverse changes in realized correlation can make hedging strategies less effective if the underlying position and the hedge position have weaker correlation than expected.

The trading portfolios include positions in financial instruments and commodities held either with trading intent or to hedge other elements of the trading book. Positions held with trading intent are those held for short-term resale and/or with intent of taking advantage of actual or expected short-term price movements or to lock in arbitrage profits. These portfolios target one of the following objectives: market making, trading, proprietary trading, liquidating positions for clients or selling financial products to clients.

Non-trading portfolios include all financial instruments held to maturity or until conditions are more advantageous to invest in other investments or held strictly for liquidity management, short-term funding and asset/liability management purposes.

Governance

The Board is responsible for approving the market risk management policy framework and the Bank's market risk appetite measures and targets. The Board also defines Bank-wide market risk limits. The Bank's President and Chief Executive Officer, who has ultimate responsibility for market risk limits, manages the Bank's market risk based on the risk appetite targets set and approved by the Board to generate acceptable return on market risk capital. The President and Chief Executive Office delegates risk-taking responsibilities to business unit managers reporting to him. The business units are responsible for the market risks inherent to their particular activities and must therefore actively manage such risks. The Market Risk Management Committee monitors market risk across the Bank and ensures that the magnitude and mix of risks remain within the Bank's market risk appetite targets and risk limits. This committee also ensures that the risk management environment is transparent, disciplined and controlled.

An integrated internal control framework is used to manage market risk, which is overseen by the Market Risk Management Committee. The Bank is continually adapting its market risk management and oversight framework.

A comprehensive policy governs global market risk management across the Bank's units and subsidiaries that are exposed to this type of risk. The policy presents the main mechanisms used for identifying and measuring the types of market risk to which the Bank is exposed, most of which are described on the previous page. It also defines the link between the Bank's market risk appetite approved by the Board and the framework implemented for setting market risk limits across the Bank's business units that are allowed to undertake market risk. The purpose of the market risk limits is to set out tolerance thresholds for these business units or portfolios to comply with the Bank's market risk appetite targets. These are cascaded down to business units using a hierarchy of different types of limits (e.g., Value at Risk (VaR), stop loss limit) allocated by portfolio, trading unit, unit manager and officer, as well as an appropriate breach escalation process.

The following tables provide a breakdown of the Bank's Consolidated Balance Sheet into financial assets and liabilities by those that carry market risk and those that do not carry market risk, distinguishing between trading positions whose main risk measures are VaR and stressed VaR (SVaR) and non-trading positions that use other risk measures.

Reconciliation of Market Risk with Consolidated Balance Sheet Items

(millions of Canadian dollars)					As at October 31, 2016
		Market risk measures			
	Balance sheet	Trading[1]	Non-Trading[2]	Not subject to market risk	Non-traded risk primary risk sensitivity
Assets					
Cash and deposits with financial institutions	8,183	181	7,580	422	Interest rate[3]
Securities					
At fair value through profit or loss	45,964	44,545	1,419	–	Interest rate[3] and other[4]
Available-for-sale	14,608	–	14,608	–	Interest rate[3] and equity[5]
Held-to-maturity	3,969	–	3,969	–	Interest rate[3]
Securities purchased under reverse repurchase agreements and securities borrowed	13,948	–	13,948	–	Interest rate[3][6]
Loans, net of allowances	119,747	6,454	113,293	–	Interest rate[3]
Customers' liability under acceptances, net of allowances	6,431	–	6,431	–	Interest rate[3]
Derivative financial instruments	10,416	9,195	1,221	–	Interest rate[7] and exchange rate
Purchased receivables	1,858	–	1,858	–	Interest rate
Defined benefit asset	48	–	48	–	Other[8]
Other	7,034	–	–	7,034	
	232,206	60,375	164,375	7,456	
Liabilities					
Deposits	139,907	4,826	135,081	–	Interest rate[3]
Acceptances	6,441	–	6,441	–	Interest rate[3]
Obligations related to securities sold short	14,207	14,207	–	–	
Obligations related to securities sold under repurchase agreements and securities loaned	22,636	–	22,636	–	Interest rate[3][6]
Derivative financial instruments	7,725	6,818	907	–	Interest rate[7] and exchange rate
Liabilities related to transferred receivables	20,131	4,378	15,753	–	Interest rate[3]
Defined benefit liability	314	–	314	–	Other[8]
Other	7,731	43	1,346	6,342	Interest rate[3]
Subordinated debt	1,012	–	1,012	–	Interest rate[3]
	220,104	30,272	183,490	6,342	

(1) Trading positions whose risk measures are VaR and SVaR. See the tables on the following pages that show the VaR and SVaR distributions of the trading portfolios by risk category as well as their correlation effect.
(2) Non-trading positions that use other risk measures.
(3) See the tables on the following pages that show the VaR and SVaR distributions of the trading portfolios by risk category and their correlation effect as well as the interest rate sensitivity tables.
(4) See the Master Asset Vehicles section in Note 6 to the consolidated financial statements.
(5) The fair value of equity securities classified as available-for-sale is presented in Notes 3 and 6 to the consolidated financial statements.
(6) These instruments are recorded at amortized cost and are subject to credit risk for capital management purposes. For transactions with maturities of more than one day, interest rate risk is included in the VaR and SVaR measures when they relate to trading activities.
(7) See Notes 17 and 18 to the consolidated financial statements.
(8) See Note 24 to the consolidated financial statements.

(millions of Canadian dollars) — As at October 31, 2015

	Balance sheet	Market risk measures		Not subject to market risk	Non-traded risk primary risk sensitivity
		Trading[1]	Non-trading[2]		
Assets					
Cash and deposits with financial institutions	7,567	36	7,192	339	Interest rate[3]
Securities					
At fair value through profit or loss	41,997	39,805	2,192	–	Interest rate[3] and other[4]
Available-for-sale	14,043	–	14,043	–	Interest rate[3] and equity[5]
Securities purchased under reverse repurchase agreements and securities borrowed	17,702	–	17,702	–	Interest rate[3][6]
Loans, net of allowances	105,853	4,565	101,288	–	Interest rate[3]
Customers' liability under acceptances, net of allowances	9,385	–	9,385	–	Interest rate[3]
Derivative financial instruments	10,842	9,412	1,430	–	Interest rate[7] and exchange rate
Purchased receivables	1,438	–	1,438	–	Interest rate
Defined benefit asset	268	–	268	–	Other[8]
Other	6,995	–	–	6,995	
	216,090	53,818	154,938	7,334	
Liabilities					
Deposits	128,830	3,204	125,626	–	Interest rate[3]
Acceptances	9,400	–	9,400	–	Interest rate[3]
Obligations related to securities sold short	17,333	17,333	–	–	
Obligations related to securities sold under repurchase agreements and securities loaned	13,779	–	13,779	–	Interest rate[3][6]
Derivative financial instruments	7,756	6,687	1,069	–	Interest rate[7] and exchange rate
Liabilities related to transferred receivables	19,770	4,139	15,631	–	Interest rate[3]
Defined benefit liability	183	–	183	–	Other[8]
Other	6,162	50	1,349	4,763	Interest rate[3]
Subordinated debt	1,522	–	1,522	–	Interest rate[3]
	204,735	31,413	168,559	4,763	

(1) Trading positions whose risk measures are VaR and SVaR. See the tables on the following pages that show the VaR and SVaR distributions of the trading portfolios by risk category as well as their correlation effect.
(2) Non-trading positions that use other risk measures.
(3) See the tables on the following pages that show the VaR and SVaR distributions of the trading portfolios by risk category and their correlation effect as well as the interest rate sensitivity tables.
(4) See the Master Asset Vehicles section in Note 6 to the consolidated financial statements.
(5) The fair value of equity securities classified as available-for-sale is presented in Notes 3 and 6 to the consolidated financial statements.
(6) These instruments are recorded at amortized cost and are subject to credit risk for capital management purposes. For transactions with maturities of more than one day, interest rate risk is included in the VaR and SVaR measures when they relate to trading activities.
(7) See Notes 17 and 18 to the consolidated financial statements.
(8) See Note 24 to the consolidated financial statements.

Assessing Market Risk

The Risk Management Group uses a variety of risk measures to estimate the size of potential losses under more or less severe scenarios, and using both short-term and long-term time horizons. For short-term horizons, the Bank's risk measures include VaR, SVaR, and sensitivity metrics. For long-term horizons or sudden significant market moves, including those due to a lack of market liquidity, the risk measures include stress testing across an extensive range of scenarios. VaR is a statistical measure of risk that is used to quantify market risks by product as well as aggregate risk by portfolio, on a scale ranging from one trading unit to another, for the Bank as a whole. VaR is defined as the maximum loss at a specific confidence level over a certain horizon under normal market conditions. The VaR method has the advantage of providing a uniform measurement of financial instrument-related market risks based on a single statistical confidence level and time horizon. The Bank uses a historical price distribution to compute the probable loss levels at the 99% confidence level, using a two-year daily time series of risk factor changes. VaR is the maximum daily loss the Bank could incur, in 99 cases out of 100, in a given portfolio. In other words, the loss could exceed that amount in only one out of 100 cases.

The trading VaR is measured by assuming a holding period of one day for ongoing market risk management and a 10-day horizon for regulatory capital purposes. This assumption is used to combine the VaR of various portfolios and provides an estimate of the daily market risk incurred by the Bank. VaR is calculated on a daily basis both for major classes of financial instruments (including derivative financial instruments) and all trading portfolios of the Financial Markets segment and Corporate Treasury of the Bank.

In addition to the one-day trading VaR, the Bank calculates a trading SVaR, which is a statistical measure of risk that replicates the VaR calculation method (one-day holding period for risk management purposes and 10-day horizon for regulatory capital purposes) but uses, instead of the variable two-year history of market risk data input, 12-month historical data corresponding to a continuous period of significant financial stress that is relevant in terms of the Bank's portfolios.

VaR methodology techniques are well suited to measure risks under normal market conditions. VaR metrics are most appropriate as a risk measure for trading positions in liquid financial markets. However, there are limitations in measuring risks with this method when extreme and sudden market risk events occur, since they are likely to underestimate the Bank's market risk. VaR methodology limitations include the following:

- past changes in market risk factors may not always produce accurate predictions of the distribution and correlations of future market movements;
- a VaR with a daily time horizon does not fully capture the market risk of positions that cannot be liquidated or hedged within one day;
- the market risk factor historical database used for VaR calculation may not reflect potential losses that could occur under unusual market conditions (e.g., periods of extreme illiquidity) relative to the historical period used for VaR estimates;
- the use of a 99% VaR confidence level does not reflect the extent of potential losses beyond that percentile.

Given the limitations to VaR, for the Bank it represents only one component in its risk management oversight, which also incorporates, among other measures, stress testing, sensitivity analysis, concentration and liquidity limits and analysis.

The Bank also conducts backtesting of the VaR model. It consists of comparing the profits and losses to the statistical VaR measure. Backtesting is essential to verifying the VaR model's capacity to adequately forecast the maximum risk of market losses and thus validate, retroactively, the quality and accuracy of the results obtained using the model. If the backtesting results present material discrepancies, the VaR model could be revised in accordance with the Bank's model risk management framework.

Trading Activities

The revenues generated by trading activities are compared with VaR as a backtesting assessment of the appropriateness of this risk measure as well as the financial performance of trading activities relative to the risk undertaken.

The first table below shows the VaR distribution of trading portfolios by risk category as well as the correlation effect. The second table on the next page shows the SVaR distribution, i.e., the VaR of the Bank's current portfolios obtained following the calibration of risk factors over a 12-month stress period.

VaR of Trading Portfolios by Risk Category[1] *

(millions of Canadian dollars)	**Year ended October 31, 2016**			
	Low	**High**	**Average**	**Period end**
Interest rate	**(2.2)**	**(6.0)**	**(3.9)**	**(3.6)**
Foreign exchange	**(2.0)**	**(5.3)**	**(3.1)**	**(2.8)**
Equity	**(2.3)**	**(5.6)**	**(3.7)**	**(3.0)**
Commodity	**(0.6)**	**(2.6)**	**(1.1)**	**(0.9)**
Correlation effect[2]	**n.m.**	**n.m.**	**5.8**	**5.3**
Total trading VaR	**(4.1)**	**(8.4)**	**(6.0)**	**(5.0)**

(millions of Canadian dollars)	Year ended October 31, 2015			
	Low	High	Average	Period end
Interest rate	(3.4)	(6.5)	(5.0)	(4.8)
Foreign exchange	(0.9)	(4.6)	(2.3)	(2.3)
Equity	(2.1)	(5.0)	(3.4)	(4.1)
Commodity	(0.5)	(2.1)	(1.0)	(1.1)
Correlation effect[2]	n.m.	n.m.	5.6	6.2
Total trading VaR	(5.0)	(7.8)	(6.1)	(6.1)

n.m. Computation of a correlation effect for the high and low is not meaningful, as highs and lows may occur on different days and be attributable to different types of risk.
(1) Amounts are presented on a pre-tax basis and represent one-day VaR using a 99% confidence level.
(2) The total trading VaR is less than the sum of the individual risk factor VaR results due to the correlation effect.

SVaR of Trading Portfolios by Risk Category[1] *

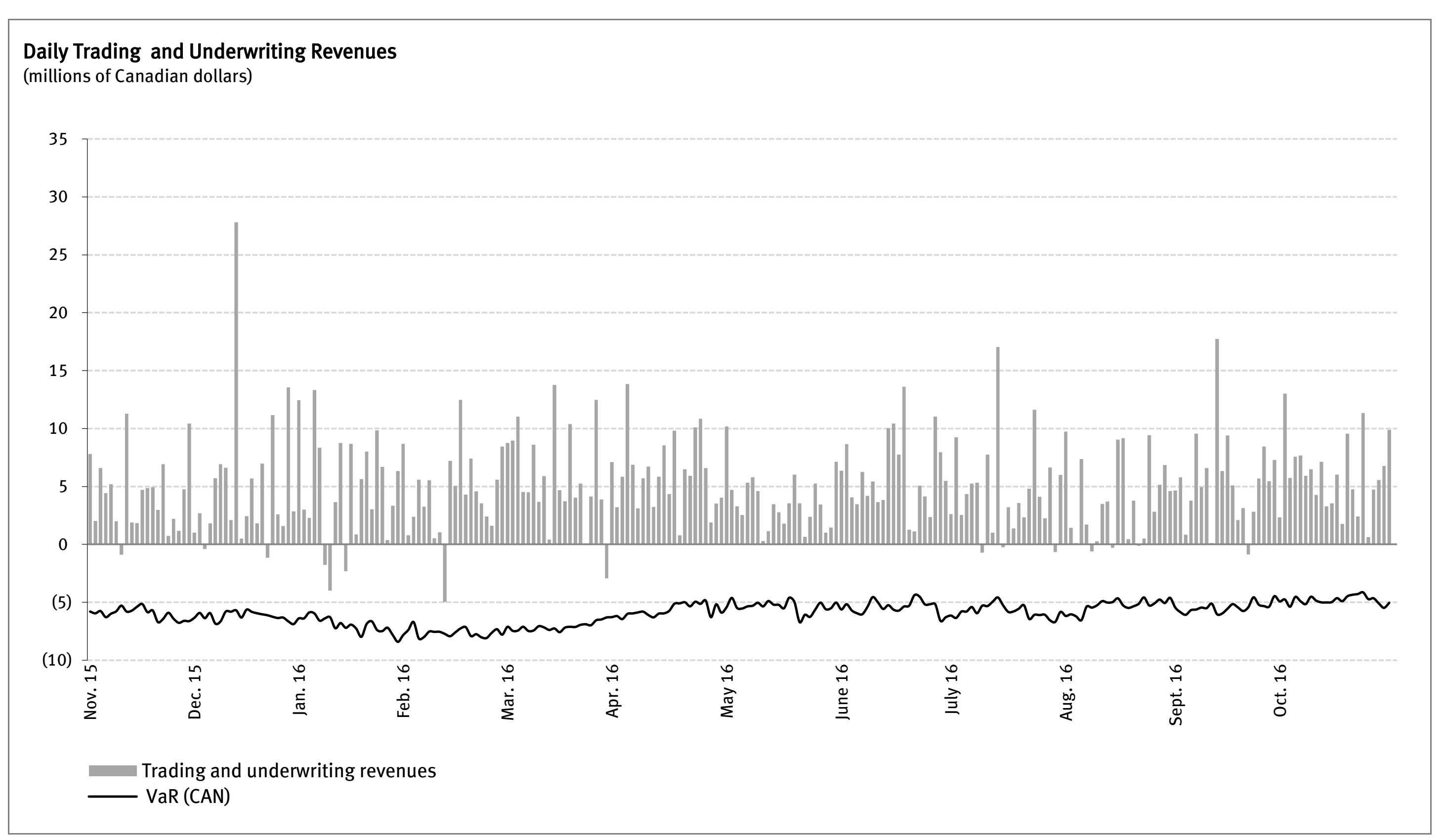
(millions of Canadian dollars)	Year ended October 31, 2016			
	Low	High	Average	Period end
Interest rate	(4.2)	(10.1)	(7.1)	(6.0)
Foreign exchange	(1.9)	(9.6)	(3.9)	(3.7)
Equity	0.2	(7.2)	(4.5)	(3.3)
Commodity	(0.6)	(4.0)	(1.4)	(1.0)
Correlation effect[2]	n.m.	n.m.	9.0	8.2
Total trading SVaR	(4.5)	(11.8)	(7.9)	(5.8)

(millions of Canadian dollars)	Year ended October 31, 2015			
	Low	High	Average	Period end
Interest rate	(5.8)	(11.9)	(8.8)	(9.8)
Foreign exchange	(1.6)	(8.3)	(3.5)	(2.5)
Equity	(2.2)	(12.0)	(4.8)	(6.0)
Commodity	(0.5)	(5.9)	(1.6)	(1.5)
Correlation effect[2]	n.m.	n.m.	10.2	11.4
Total trading SVaR	(5.0)	(12.1)	(8.5)	(8.4)

n.m. Computation of a correlation effect for the high and low is not meaningful, as highs and lows may occur on different days and be attributable to different types of risk.
(1) Amounts are presented on a pre-tax basis and represent one-day SVaR using a 99% confidence level.
(2) The total trading SVaR is less than the sum of the individual risk factor SVaR results due to the correlation effect.

The average total trading VaR was $6.0 million for fiscal 2016, largely unchanged from the fiscal 2015 average of $6.1 million. Lower interest rate VaR was mostly offset by higher foreign exchange VaR. The average total trading SVaR was $7.9 million for fiscal 2016, down $0.6 million from $8.5 million in fiscal 2015. This decrease was essentially caused by lower interest rate SVaR. The total trading VaR and SVaR were generally higher in the first half of fiscal 2016 but moved closer to the annual average during the third quarter of 2016 and finished the fiscal year lower than the annual average.

The table below shows daily trading and underwriting revenues and VaR. Daily trading and underwriting revenues were positive on 94% of the days for the year ended October 31, 2016. Daily trading and underwriting losses in excess of $1 million were recorded on 6 days. None of these losses exceeded the VaR limit.



Stress Testing and Crisis Scenarios

Stress testing is a risk management technique that consists of estimating potential losses under abnormal market conditions and risk factor movements. Stress testing enhances transparency by exploring a range of potential low-probability events. Comprehensive stress testing scenarios include the following:

- changes in all relevant market rates;
- potential political shifts;
- market illiquidity;
- the interplay between market and credit risk.

These stress tests and sensitivity analyses simulate the results that the portfolios would generate if the extreme scenarios in question were to occur. The Bank's stress testing framework applied to all positions generating market risk currently comprises the following range of different stress test scenarios:

- interest rate: sharp parallel increases/decreases in interest rates; non-parallel movements (flattening and steepening) and increases/decreases in credit spreads;
- equity: sharp stock market crash coupled with a significant increase in volatility; increase in stock prices associated with a lesser volatility; increase in volatility of term structure coupled with a decrease in stock prices;
- commodity: significant increases/decreases in commodity prices coupled with increases/decreases in volatility; short-term and long-term increases/decreases in commodities;
- foreign exchange: depreciation/appreciation of the U.S. dollar and of other currencies relative to the Canadian dollar.

Controlling Risk

Outstanding VaR exposure is monitored daily in relation to established limits for each type of market risk, portfolio and business unit. The RMC reviews VaR results each quarter, including breaches of the limits set out in the policy, if any. The results of stress tests and sensitivity analyses are subject to maximum potential loss limits for the Bank, which are approved by the Board.

The Bank also uses economic capital for market risk as an indicator for risk appetite and limits setting. This indicator measures the amount of capital that is required to absorb unexpected losses due to market risk events over a one-year horizon and with a determined confidence level. For additional information on economic capital, see page 47 in the Capital Management section of this MD&A.

Separate policies govern the pricing and valuation adjustments on financial instruments valued at fair value.

Structural Interest Rate Risk

As part of its core banking activities, such as lending and deposit taking, the Bank is exposed to interest rate risk. Interest rate risk is the potential negative impact of interest rate fluctuations on the Bank's annual net interest income and economic value of equity. The Bank's material exposure to interest rate risk stems from a variety of sources:

- yield curve risk, which refers to changes in the level, slope and shape of the yield curve;
- repricing risk, which arises from timing differences in the maturity and repricing of on- and off-balance-sheet items;
- options risk, either implicit (e.g., prepayment in mortgage loans) or explicit (e.g., capped mortgages and rate guarantees) in balance sheet products;
- basis risk that is caused by imperfect correlation between different yield curves.

Activities related to hedging, investments and term funding are also exposed to structural interest rate risk. To manage such risk, the Bank uses a funds transfer pricing mechanism. Funds transfer pricing is a process by which the Bank's business units are charged or paid according to their use or supply of funding. Through this mechanism, all funding activities as well as the interest rate risk and liquidity risk associated with those activities are centralized in Corporate Treasury.

Active management of structural interest rate risk can significantly enhance the Bank's profitability and add to shareholder value. The Bank's goal is to maximize its economic value of equity and annual net interest income subject to the Bank's risk appetite. This has to be accomplished within prescribed risk limits and is done primarily by implementing a policy framework approved by the Board, which establishes a risk tolerance threshold, monitoring structures controlled by the various committees, risk indicators, reporting procedures, delegation of responsibilities and segregation of duties. The Bank also prepares an annual funding plan that incorporates the expected growth of assets and liabilities.

Regulatory Environment

In April 2016, the BCBS issued the final version of *Interest Rate Risk in the Banking Book,* a document that addresses risk management, capital treatment and the supervision of interest rate risk in the banking book. This document replaces *Principles for the Management and Supervision of Interest Rate Risk* published by the BCBS in 2004. Two objectives are behind the document:

- ensure that banks have enough capital to cover potential banking book losses stemming from changes in interest rates;
- limit capital arbitrage between the trading book and the banking book.

Presently, the Bank is fully compliant with the 2004 principles and is progressing towards compliance with the final BCBS rules, which have to be implemented by 2018.

Governance

Management of the Bank's structural interest rate risk is mandated to Corporate Treasury. In this role, the Corporate Treasury executives and personnel are responsible for the identification and day-to-day management of the risks inherent to structural interest rate risk hedging decisions and operations. They act as the primary effective challenge function with respect to the execution and monitoring of these activities. Moreover, they must ensure compliance with the structural interest rate risk policy. The Office of the President approves and endorses the structural interest rate exposure and strategies on the recommendation of Corporate Treasury. Operational supervision is ensured by two committees: the Management Forecast Committee and the Intersector Funding Committee. The former analyzes the various structural interest rate risk metrics. The latter ensures that the funds transfer pricing mechanism is adequate and captures all new products offered. Both committees report to the Office of the President – Asset/Liability Management Committee.

Stress Testing and Crisis Scenarios

Stress tests are performed on a regular basis to assess the impact of various scenarios on annual net interest income and on the economic value of equity in order to guide the management of structural interest rate risk. Crisis scenarios are performed where the yield curve level, slope and shape are shocked. Yield curve basis and volatility scenarios are also performed. All risk factors mentioned above are covered by specific scenarios and have Board-approved or GRC-approved risk limits.

Dynamic simulation is also used to project the Bank's future net interest income, future economic value and future structural interest rate risk exposure. These simulations project cash flows of assets, liabilities and off-balance-sheet products over a given investment horizon. Given their dynamic nature, they encompass assumptions pertaining to changes in volume, client term preference, prepayments of deposits and loans, and yield curve.

The following tables present the potential before-tax impact of an immediate and sustained 100-basis-point increase or decrease in interest rates on the economic value of equity and on the net interest income of the non-trading portfolios for the next 12 months, assuming no further hedging is undertaken.

**Interest Rate Sensitivity –
Non-Trading Activities (Before Tax) ***

(millions of Canadian dollars)			As at October 31, 2016
	Canadian dollar	Other currencies	Total
Impact on equity			
100-basis-point increase in the interest rate	(210)	26	(184)
100-basis-point decrease in the interest rate	169	(33)	136
Impact on net interest income			
100-basis-point increase in the interest rate	(10)	33	23
100-basis-point decrease in the interest rate	18	(37)	(19)

(millions of Canadian dollars)			As at October 31, 2015
	Canadian dollar	Other currencies	Total
Impact on equity			
100-basis-point increase in the interest rate	(145)	20	(125)
100-basis-point decrease in the interest rate	115	(25)	90
Impact on net interest income			
100-basis-point increase in the interest rate	14	16	30
100-basis-point decrease in the interest rate	(12)	(18)	(30)

Investment Governance

The Bank has created available-for-sale securities and held-to-maturity securities portfolios in liquid and less liquid securities for strategic, long-term investment and liquidity management purposes. These investments carry market risk, credit risk, liquidity risk and concentration risk.

The investment governance sets out the guiding principles and general management standards that must be followed by all those who manage portfolios of available-for-sale and held-to-maturity securities included in the portfolios of the Bank and its subsidiaries. Under this investment governance, business units that are active in managing these types of portfolios must adopt internal investment policies that set, among other things, targets and limits for the allocation of assets in the portfolios concerned and internal approval mechanisms. The primary objective is to reduce concentration risk by industry, issuer, country, type of financial instrument and credit quality.

Overall limits in value and in proportion to the Bank's equity are set on the outstanding amount of liquid preferred shares, liquid equity securities excluding preferred shares, and instruments classified as illiquid securities in the available-for-sale securities portfolios. The overall exposure to common shares with respect to an individual issuer and the total outstanding amount invested in hedge funds and private equity funds, for investment banking services, are also subject to these limits. Restrictions are also set on investments defined as special. Lastly, the Bank has a specific strategic investment policy, approved by the Board, which defines strategic investments as purchases of business assets or acquisitions of significant interests in an entity for purposes of acquiring control or creating a long-term relationship.

Structural Foreign Exchange Risk

The Bank's structural foreign exchange risk arises from investments in foreign operations denominated in currencies other than the Canadian dollar. This risk, predominantly in U.S. dollars, is measured by assessing the impact of currency fluctuations on net interest income and shareholders' equity. The Bank uses financial instruments (derivative and non-derivative) to hedge some of this impact. An adverse change in foreign exchange rates can also impact the Bank's capital ratios due to the amount of RWA denominated in a foreign currency. When the Canadian dollar depreciates relative to other currencies, unrealized translation gains on the Bank's net investments in foreign operations, net of related hedges, are reported in other comprehensive income in shareholders' equity. In addition, the Canadian-dollar equivalent of U.S.-dollar-denominated RWA and regulatory capital deductions increases. The reverse is true when the Canadian dollar appreciates relative to the U.S. dollar. The structural foreign exchange exposure is managed to ensure that the potential impacts on the capital ratios and net income are within tolerable limits set by risk policies.

Liquidity and Funding Risk Management

Liquidity and funding risk is the risk that the Bank will be unable to honour daily cash and financial obligations without resorting to costly and untimely measures. Liquidity and funding risk arises when sources of funds become insufficient to meet scheduled payments under the Bank's commitments. Liquidity risk stems from mismatched cash flows related to assets and liabilities as well as the characteristics of certain products such as credit commitments and non-fixed-term deposits.

The Bank's primary objective as a financial institution is to manage liquidity such that it supports the Bank's business strategy and allows it to honour its commitments when they come due, even in extreme conditions. This is done primarily by implementing a policy framework approved by the Board, which establishes a risk appetite, monitoring structures controlled by various committees, risk indicators, reporting procedures, delegation of responsibilities and segregation of duties. The Bank also prepares an annual funding plan that incorporates the expected growth of assets and liabilities.

Regulatory Environment

The Bank works closely with national and international regulators to implement regulatory liquidity standards while adapting its processes and policies to reflect the Bank's liquidity risk appetite towards these new requirements.

On May 30, 2014, OSFI issued its final *Liquidity Adequacy Requirements* (LAR) guideline, which is OSFI's new liquidity framework. It contains the following six chapters: Overview, Liquidity Coverage Ratio (LCR), Net Stable Funding Ratio (NSFR), Net Cumulative Cash Flow (NCCF), Liquidity Monitoring Tools, and Intraday Liquidity Monitoring Tools. The LCR is intended to oversee banks through severe short-term stress while the NSFR is a structural ratio over a one-year horizon. The NCCF metric is defined as a monitoring tool that calculates survival period. It is based on the assumptions of a stress scenario prescribed by OSFI that aims to represent a combined systemic and bank-specific crisis. The LAR guideline is reviewed annually to reflect both international and domestic regulatory developments.

In July 2014, OSFI issued *Public Disclosure Requirements for Domestic Systemically Important Banks on Liquidity Coverage Ratio,* a guideline based on the BCBS's final LCR rules that prescribe a standardized format across the banking industry. The Canadian D-SIBs implemented the LCR disclosure requirements in January 2015.

In October 2014, the Bank for International Settlements (BIS) published final rules for the NSFR. The Bank is currently monitoring this ratio and expects to be compliant in time for the implementation. In June 2015, BCBS issued its final *Net Stable Funding Ratio Disclosure Standards* document. Designed to improve the transparency of NSFR disclosure, this document sets out a common framework for public disclosure that will not be required before its formal implementation date of January 1, 2018.

In addition, in its federal budget tabled on March 22, 2016, the Government of Canada confirmed its intention to implement a new bail-in regime applicable to D-SIBs. On April 20, 2016, the Government of Canada introduced a bill to create a bail-in regime and, on June 22, 2016, a law was adopted. The law amends the Canada Deposit Insurance Corporation Act (CDICA). In particular, it allows the *Canada Deposit Insurance Corporation* (CDIC) to be appointed receiver of a D-SIB and to convert certain shares and certain eligible liabilities of a D-SIB into common shares of the concerned bank if OSFI considers that the bank has ceased, or is about to cease, to be viable. The Bank continues to monitor bail-in regime developments, as additional details on implementation, scope and timing are expected to follow through regulations.

The Bank also produces Quantitative Impact Study (QIS) reports that are submitted to the BIS. Using the QIS results, the BIS can follow the progress of Basel III implementation.

Governance

Corporate Treasury manages liquidity and funding needs Bank-wide. Its activities comprise:

- managing day-to-day cash flow, collateral and short-term funding;
- planning and issuing long-term funding and determining liquidity cost transfer pricing;
- participating in the development and implementation of the liquidity management framework, the Liquidity, Funding and Pledging Governance policy, the annual funding plan and the liquidity contingency plan;
- developing and implementing the LAR guidelines and the national and international regulations to which the Bank must adhere;
- monitoring, measuring and reporting on the Bank's exposure to liquidity risk, both overall and by currency;
- establishing and maintaining an adequate risk assessment process and effective controls.

The Bank's Liquidity, Funding and Pledging Governance policy requires review and approval by the RMC, based on recommendations from the GRC. The Bank has established two levels of limits. The first level of limits encompasses the Bank's overall liquidity position and is Board approved, while the second level of limits is more focused on specific elements of liquidity risk and is approved by the GRC. The Board not only approves the supervision of day-to-day risk management and governance but also backup plans in anticipation of emergency and liquidity crisis situations. If a limit has to be revised, the Risk Management Group with the support of Corporate Treasury, submits the proposed revision to the GRC. If the latter approves the request, it is presented to the Board for approval only if a level-one limit is concerned.

Liquidity risk supervision at the Bank is mainly assigned to the Liquidity and Funding Committee, composed of representatives from Corporate Treasury, the Risk Management Group, and Internal Audit. In accordance with the roles and responsibilities under their respective mandates, the members of this committee are also asked for input in developing risk management and control mechanisms and implementing policies.

Through the Liquidity and Funding Committee, Corporate Treasury regularly reports changes in liquidity, funding and pledging indicators and compliance with regulatory, Board and GRC approved limits. If control reports indicate non-compliance with the limits and, generally, deterioration of liquidity indicators, Corporate Treasury takes remedial action. According to the escalation process, problematic situations are reported to the management of the Finance and Treasury unit and of the Risk Management Group, as well as to the GRC and to the RMC. An executive report on the Bank's liquidity and funding risk management, which describes the Bank's liquidity position and informs the Board of non-compliance with the limits and other rules observed during the reference period as well as remedial action taken, is submitted quarterly to the RMC.

Although the day-to-day and strategic management of risks associated with liquidity, funding and pledging activities and the monitoring of compliance with the resulting policy is assumed by Corporate Treasury, the Risk Management Group is responsible for ensuring that an appropriate risk management framework is in place and that risk appetite and policy are adhered to. This provides an independent oversight and effective challenge for the liquidity, funding and pledging decisions, strategy and exposure.

Liquidity Management

The Bank performs liquidity management, funding and pledging operations not only from its head office and regional offices in Canada, but also through certain foreign centres. Although the volume of such operations abroad represents a sizable portion of global liquidity management, the Bank's liquidity management is centralized. By organizing liquidity, funding and pledging activities within Corporate Treasury, the Bank can better coordinate enterprise-wide funding and risk monitoring activities. All internal funding transactions between Bank entities are controlled by Corporate Treasury.

This centralized structure streamlines the allocation and control of liquidity management, funding and pledging limits. Nonetheless, the Liquidity, Funding and Pledging Governance policy contains special provisions for the financial centres that are most active in terms of institutional funding and sets limits and monitoring thresholds for secured and unsecured short-term funding, both in absolute value and materiality.

The Bank's funds transfer pricing system prices liquidity by allocating the cost or income to the various business segments. Liquidity costs are allocated to liquidity-intensive activities, mainly long-term loans, and commitments to extend credit and less liquid securities as well as strategic investments. The liquidity compensation is credited to the suppliers of funds, primarily funding in the form of stable deposits from the Bank's distribution network.

Short-term day-to-day funding decisions are based on a daily cumulative net cash position, which is controlled using liquidity ratio limits. Among these ratios and metrics, the Bank pays particular attention to the funds obtained on the wholesale market and to cumulative cash flows over various time horizons.

Moreover, the Bank's collateral pledging activities are monitored in relation to the different limits set by the Bank and are subject to monthly stress tests using simulations. In particular, the Bank uses various scenarios to estimate the potential amounts of additional collateral that would be required in the event of a downgrade to the Bank's credit rating.

Liquidity risk can be assessed in many different ways using different liquidity indicators. One of the key monitoring tools of liquidity risk is the Bank's survival period based on contractual maturity and behavioural assumptions applied to balance sheet items as well as off-balance-sheet commitments.

Stress Testing and Crisis Scenarios

Using various simulations, survival period measures the number of months it would take to completely utilize the Bank's liquid assets if the Bank were to lose deposits prematurely or if funds from wholesale markets were not renewed at maturity. It is measured monthly using three scenarios. These scenarios were developed to assess sensitivity to a Bank-specific or systemic crisis. Deposit loss simulations are carried out based on their degree of stability, while the value of certain assets is encumbered by an amount reflecting their readiness for liquidation in a crisis. These scenarios are reviewed and submitted to the Board once a year for approval.

The Bank considers, among its simulations, a severe liquidity crisis scenario, where the Bank experiences difficulties in a turbulent financial market. This scenario combines a significant limitation in the access to its funding channels and a significant decrease of its assets' marketability.

The stress test results provide the Bank with its potential liquidity requirements under each scenario and, given the liquidity risk appetite adopted, allow the Bank to manage unwanted risk. Each scenario has its own set of underlying assumptions that cover a wide range of aspects, including haircuts, encumbrance on liquid assets, loss of deposits, collateral usage and assets pledged. It also includes an estimate of the funding needs of contingent liabilities. Contingent liquidity risk refers to the possibility that the Bank needs a significant amount of funding due to events such as an unexpected increase in drawdowns on committed lines, withdrawal of deposits, increase in collateral requirements or other triggers embedded in legal documentation.

The following assumptions underlie the scenarios:

- partial non-renewal at maturity for most of the Bank's unsecured wholesale funding;
- non-renewal of a portion of the retail and commercial deposits;
- run-offs on demand deposits;
- partial renewal of loans;
- drawdowns on committed lines;
- additional collateral required for the Bank in the event of a credit rating downgrade;
- limited access to the foreign exchange market.

The results of these stress tests are reviewed on a monthly basis by the Liquidity and Funding Committee while the Board reviews the results each quarter.

Lastly, the Bank maintains an up-to-date, comprehensive financial contingency and crisis recovery plan that describes the measures to be taken in the event of a critical liquidity situation. This plan is reviewed and approved annually by the Board as part of business continuity and recovery planning. See the Regulatory Compliance Risk Management section for additional information.

Liquidity Risk Appetite

The Bank monitors and manages its risk appetite through liquidity limits, ratios and stress tests. The Bank's liquidity risk appetite is articulated around the following three axes:

- ensure the Bank has a sufficient amount of unencumbered liquid assets to cover its financial requirements, in both normal and stressed conditions;
- ensure the Bank keeps a liquidity buffer above the minimum regulatory requirement;
- ensure the Bank maintains diversified and stable sources of funding.

Liquid Assets

To protect depositors and creditors from unexpected crisis situations, the Bank holds a portfolio of unencumbered liquid assets that can be readily liquidated to meet financial obligations. This portfolio consists of highly liquid securities, most of which are issued or guaranteed by governments, and of cash loans maturing in less than 30 days. The majority of unencumbered liquid assets are held in Canadian or U.S. dollars. Moreover, all assets that can be quickly monetized are considered liquid assets. The Bank's liquidity reserves do not factor in the availability of the central bank's emergency liquidity facilities. The following tables provide information on the Bank's encumbered and unencumbered assets.

Liquid Asset Portfolio

As at October 31 (millions of Canadian dollars)					2016	2015
	Bank-owned liquid assets[1]	Liquid assets received[2]	Total liquid assets	Encumbered liquid assets[3]	Unencumbered liquid assets	Unencumbered liquid assets
Cash and deposits with financial institutions	**8,183**	**–**	**8,183**	**1,982**	**6,201**	6,251
Securities						
Issued or guaranteed by the Canadian government, U.S. Treasury, other U.S. agencies and other foreign governments	**21,958**	**15,978**	**37,936**	**22,580**	**15,356**	12,061
Issued or guaranteed by Canadian provincial and municipal governments	**16,087**	**13,302**	**29,389**	**21,836**	**7,553**	7,174
Other debt securities	**4,112**	**1,174**	**5,286**	**1,798**	**3,488**	3,154
Equity securities	**21,765**	**40,838**	**62,603**	**53,254**	**9,349**	14,507
Loans						
Securities backed by insured residential mortgages	**8,436**	**–**	**8,436**	**4,200**	**4,236**	2,761
As at October 31, 2016	**80,541**	**71,292**	**151,833**	**105,650**	**46,183**	
As at October 31, 2015	66,908	68,915	135,823	89,915		45,908

As at October 31 (millions of Canadian dollars)	2016	2015
Unencumbered liquid assets by entity		
National Bank (parent)	**25,951**	28,739
Domestic subsidiaries	**8,185**	7,147
Foreign subsidiaries and branches	**12,047**	10,022
	46,183	45,908

As at October 31 (millions of Canadian dollars)	2016	2015
Unencumbered liquid assets by currency		
Canadian dollar	**28,629**	24,238
U.S. dollar	**13,829**	20,752
Other currencies	**3,725**	918
	46,183	45,908

Liquid Asset Portfolio – Average[4]

Year ended October 31 (millions of Canadian dollars)					2016	2015
	Bank-owned liquid assets[1]	Liquid assets received[2]	Total liquid assets	Encumbered liquid assets[3]	Unencumbered liquid assets	Unencumbered liquid assets
Cash and deposits with financial institutions	**7,379**	**–**	**7,379**	**1,322**	**6,057**	6,322
Securities						
Issued or guaranteed by the Canadian government, U.S. Treasury, other U.S. agencies and other foreign governments	**20,211**	**16,113**	**36,324**	**23,482**	**12,842**	10,411
Issued or guaranteed by Canadian provincial and municipal governments	**15,822**	**11,795**	**27,617**	**20,155**	**7,462**	7,212
Other debt securities	**3,536**	**1,203**	**4,739**	**1,674**	**3,065**	3,207
Equity securities	**19,836**	**39,105**	**58,941**	**47,230**	**11,711**	17,079
Loans						
Securities backed by insured residential mortgages	**5,925**	**–**	**5,925**	**2,800**	**3,125**	2,102
As at October 31, 2016	**72,709**	**68,216**	**140,925**	**96,663**	**44,262**	
As at October 31, 2015	66,692	70,936	137,628	91,295		46,333

(1) Bank-owned liquid assets include assets for which there are no legal or geographic restrictions.
(2) Securities received as collateral with respect to securities financing and derivative transactions and securities purchased under reverse repurchase agreements and securities borrowed.
(3) In the normal course of its funding activities, the Bank pledges assets as collateral in accordance with standard terms. Encumbered liquid assets include assets used to cover short sales, obligations related to securities sold under repurchase agreements and securities loaned, guarantees related to security-backed loans and borrowings, collateral related to derivative financial instrument transactions, asset-backed securities and liquid assets legally restricted from transfers.
(4) The average is based on the sum of the end-of-period balances of the 12 months of the year divided by 12.

Summary of Encumbered and Unencumbered Assets

(millions of Canadian dollars)						As at October 31, 2016
		Encumbered assets(1)		Unencumbered assets	Total	Encumbered assets as % of total assets
	Pledged as collateral	Other(2)	Available as collateral	Other(3)		
Cash and deposits with financial institutions	94	1,888	6,201	–	8,183	0.9
Securities	28,176	–	35,746	619	64,541	12.1
Securities purchased under reverse repurchase agreements and securities borrowed	–	13,948	–	–	13,948	6.0
Loans, net of allowances	36,151	–	4,236	79,360	119,747	15.6
Customers' liability under acceptances, net of allowances	–	–	–	6,431	6,431	–
Derivative financial instruments	–	–	–	10,416	10,416	–
Due from clients, dealers and brokers	–	–	–	843	843	–
Purchased receivables	–	–	–	1,858	1,858	–
Investments in associates and joint ventures	–	–	–	645	645	–
Premises and equipment	–	–	–	1,338	1,338	–
Goodwill	–	–	–	1,412	1,412	–
Intangible assets	–	–	–	1,140	1,140	–
Other assets	–	–	–	1,704	1,704	–
	64,421	15,836	46,183	105,766	232,206	34.6

(millions of Canadian dollars)						As at October 31, 2015
		Encumbered assets(1)		Unencumbered assets	Total	Encumbered assets as % of total assets
	Pledged as collateral	Other(2)	Available as collateral	Other(3)		
Cash and deposits with financial institutions	42	1,274	6,251	–	7,567	0.6
Securities	18,858	–	36,527	655	56,040	8.7
Securities purchased under reverse repurchase agreements and securities borrowed	–	17,333	369	–	17,702	8.0
Loans, net of allowances	31,594	–	2,761	71,498	105,853	14.6
Customers' liability under acceptances, net of allowances	–	–	–	9,385	9,385	–
Derivative financial instruments	–	–	–	10,842	10,842	–
Due from clients, dealers and brokers	–	–	–	415	415	–
Purchased receivables	–	–	–	1,438	1,438	–
Investments in associates and joint ventures	–	–	–	831	831	–
Premises and equipment	–	–	–	1,817	1,817	–
Goodwill	–	–	–	1,277	1,277	–
Intangible assets	–	–	–	1,059	1,059	–
Other assets	–	–	–	1,864	1,864	–
	50,494	18,607	45,908	101,081	216,090	31.9

(1) In the normal course of its funding activities, the Bank pledges assets as collateral in accordance with standard terms. Encumbered assets include assets used to cover short sales, obligations related to securities sold under repurchase agreements and securities loaned, guarantees related to security-backed loans and borrowings, collateral related to derivative financial instrument transactions, asset-backed securities, residential mortgage loans securitized and transferred under the Canada Mortgage Bond program, assets held in consolidated trusts supporting the Bank's funding activities and mortgage loans transferred under covered bond programs.

(2) Other encumbered assets include assets for which there are restrictions and therefore cannot be used for collateral or funding purposes as well as assets used to cover short sales.

(3) Other unencumbered assets are assets that cannot be used for collateral or funding purposes in their current form. This category includes assets that are potentially eligible as funding program collateral (for example, Canada Mortgage and Housing Corporation insured mortgages that can be securitized into mortgage-backed securities under the *National Housing Act* (Canada)).

Liquidity Coverage Ratio (LCR)

The LCR was introduced to ensure banks maintain sufficient liquidity to withstand periods of severe short-term stress. OSFI has been requiring Canadian banks to maintain a minimum LCR of 100% since January 1, 2015. An LCR above 100% ensures that banks are holding sufficient high-quality liquid assets (HQLA) to cover net cash outflows given a severe, 30-day liquidity crisis. The assumptions underlying the LCR scenario were established by the BCBS and OSFI.

The following table provides average LCR data calculated using the three month-end figures in the quarter. For the quarter ended October 31, 2016, the Bank's average LCR was 134%, well above the 100% regulatory requirement and demonstrating the Bank's solid liquidity position.

LCR Disclosure Requirements[1]

(millions of Canadian dollars)			For the quarter ended
	October 31, 2016		July 31, 2016
	Total unweighted value[2] (average)	Total weighted value[3] (average)	Total weighted value[3] (average)
High-quality liquid assets (HQLA)			
1 Total HQLA	n.a.	36,702	31,762
Cash outflows			
2 Retail deposits and deposits from small business customers, of which:	36,359	2,425	2,332
3 Stable deposits	17,304	519	517
4 Less stable deposits	19,055	1,906	1,815
5 Unsecured wholesale funding, of which:	47,627	26,163	23,453
6 Operational deposits (all counterparties)	11,593	2,791	2,607
7 Non-operational deposits (all counterparties)	28,004	15,342	12,943
8 Unsecured debt	8,030	8,030	7,903
9 Secured wholesale funding	n.a.	6,352	5,478
10 Additional requirements, of which:	38,944	10,465	9,078
11 Outflows related to derivative exposures and other collateral requirements	9,820	5,059	4,788
12 Outflows related to loss of funding on secured debt securities	1,987	1,987	906
13 Backstop liquidity and credit enhancement facilities and commitments to extend credit	27,137	3,419	3,384
14 Other contractual commitments to extend credit	834	134	107
15 Other contingent commitments to extend credit	70,509	793	814
16 Total cash outflows	n.a.	46,332	41,262
Cash inflows			
17 Secured lending (e.g., reverse repos)	54,344	8,949	8,973
18 Inflows from fully performing exposures	7,728	4,322	4,341
19 Other cash inflows	5,630	5,630	4,778
20 Total cash inflows	67,702	18,901	18,092
		Total adjusted value[4]	Total adjusted value[4]
21 Total HQLA	n.a.	36,702	31,762
22 Total net cash outflows	n.a.	27,431	23,170
23 Liquidity coverage ratio (%)[5]	n.a.	134 %	137 %

n.a. Not applicable
(1) OSFI prescribed a table format in order to standardize disclosure throughout the banking industry.
(2) Unweighted values are calculated as outstanding balances maturing or callable within 30 days (for inflows and outflows).
(3) Weighted values are calculated after the application of respective haircuts (for HQLA) or inflow and outflow rates.
(4) Total adjusted values are calculated after the application of both haircuts and inflow and outflow rates and any applicable caps.
(5) The data in this table has been calculated using averages of the three month-end figures in the quarter. Consequently, the LCR ratio (line 23) is an average ratio for the three months of the quarter and might not equal the LCR ratio calculated using lines 21 and 22.

Level 1 liquid assets represent 85% of the Bank's HQLA, which includes cash, central bank deposits, and bonds issued or guaranteed by the Canadian government and Canadian provincial governments.

Cash outflows arise from the application of OSFI-prescribed assumptions on deposits, debt, secured funding, commitments and additional collateral requirements. The cash outflows are partly offset by cash inflows, which come mainly from secured loans and performing loans. The Bank expects some quarter-over-quarter variation between reported LCRs, and such variation may not be indicative of a trend. The variation between the quarter ended October 31, 2016 and the previous quarter was a result of normal business activities. The Bank's liquid asset buffer is well in excess of its total net cash outflows.

The LCR assumptions differ from the assumptions used for the liquidity disclosures presented in the tables on the previous pages or those used for internal liquidity management rules. While the liquidity disclosure framework was prescribed by the EDTF, the Bank's internal liquidity metrics use assumptions that are calibrated according to its business model and experience.

Intraday Liquidity

The Bank manages its intraday liquidity in such a way that the amount of available liquidity exceeds its maximum intraday liquidity requirements. The Bank monitors its intraday liquidity on an hourly basis and the evolution is presented monthly to the Liquidity and Funding Committee.

Funding Risk

Funding risk is defined as the risk to the Bank's ongoing ability to raise sufficient funds to finance actual or proposed business activities on an unsecured or secured basis at an acceptable price. The Bank maintains a good balance of its funding through appropriate diversification of its unsecured funding vehicles, securitization programs and secured funding. The Bank also diversifies its funding by currency, geography and maturity. The funding management priority is to achieve the optimal balance between the deposit liabilities of the Bank's retail network, secured funding and unsecured funding. This brings optimal stability to the funding and reduces vulnerability to unpredictable events.

The Bank's retail network deposits are its primary and most stable source of funding. Stable funds are used to fund Bank activities, whereas funds from the wholesale markets are used to fund securities. In order to maintain the ideal funding profile, the Bank seeks to limit short-term wholesale funding and is careful to diversify its funding sources. The Bank seeks to diversify its funding sources by geographic location, currency, instrument, maturity and depositor. In addition, the Bank is actively involved in securitization programs (residential mortgages and credit card receivables) that diversify its access to long-term funding.

Funding and liquidity levels remained sound and robust over the year and the Bank does not foresee any event, commitment or demand that might have a significant impact on its funding and liquidity risk position. For additional information, see the table entitled Residual Contractual Maturities of Balance Sheet Items and Off-Balance-Sheet Commitments in Note 30 to the consolidated financial statements.

Credit Ratings

The credit ratings assigned by ratings agencies represent their assessment of the Bank's credit quality based on qualitative and quantitative information provided to them. Credit ratings may be revised at any time based on macro-economic factors or on the current and projected financial condition of the Bank. Credit ratings are one of the main factors that influence the Bank's ability to access financial markets at a reasonable cost. A downgrade in the Bank's credit ratings could adversely affect the cost, size and term of future funding. Following the issuance of a consultation paper on a proposed bail-in regime by Department of Finance Canada, certain credit rating agencies lowered their outlook from "stable" to "negative" for all Canadian D-SIBs. The following table presents the Bank's credit ratings according to four rating agencies as at October 31, 2016.

	Moody's	S&P	DBRS	Fitch
Short-term senior debt	P-1	A-1	R-1 (mid)	F1
Canadian commercial paper		A-1 (mid)		
Long-term senior debt	Aa3	A	AA (low)	A+
Subordinated debt	Baa1	BBB+	A (high)	A
Preferred shares	Baa3 (hyb)	P-2(low)	Pfd-2	BBB-
NVCC preferred shares	Baa3 (hyb)	P-3(high)	Pfd-2 (low)	
Rating outlook[1]	Negative	Stable[2]	Negative	Stable

(1) Rating outlooks on long-term senior debt.
(2) On December 11, 2015, S&P revised its outlook from "negative" to "stable" for all Canadian D-SIBs.

Guarantees

As part of a comprehensive liquidity management framework, the Bank regularly reviews its contracts that stipulate that additional collateral could be required in the event of a downgrade of the Bank's credit rating. The Bank's liquidity position management already incorporates additional collateral requirements in the event of a one-notch to three-notch downgrade. The table below presents the additional collateral requirements in the event of a one-, two- or three-notch credit rating downgrade.

(millions of Canadian dollars)	As at October 31, 2016		
	One-notch downgrade	Two-notch downgrade	Three-notch downgrade
Derivatives(1)	16	38	53
Other(2)	–	–	199

(1) Contractual requirements related to agreements known as Credit Support Annexes.
(2) Contractual requirements related to a margin funding facility related to the MAV conduits.

Funding Strategy

The key objectives of the funding strategy are to:

- support the organic growth of the Bank through prudent liquidity and funding management to withstand severe stresses;
- fund core banking activities with deposits and securitizations;
- limit short-term wholesale funding.

To do so, the Bank actively monitors and controls liquidity risk exposures and funding needs within and across entities, business segments and currencies. The process involves evaluating the liquidity position of individual business segments in addition to that of the Bank as a whole as well as the liquidity risk from raising unsecured and secured funding in foreign currencies. The funding strategy is executed through the funding plan.

The Bank's funding framework consists of the following:

- implementing a diversified deposit strategy;
- maintaining active access to wholesale funding markets and ensuring diversification by depositor, funding vehicle type, geographic location, currency, and tenor of funding in the secured and unsecured markets;
- monitoring and controlling liquidity risk exposure and funding needs across all the Bank's entities, business segments and currencies using a well-developed funds transfer pricing system that includes a liquidity premium;
- having funding centres in the Montreal, Toronto, New York and London offices;
- investing in infrastructure to ensure quality and timeliness in data transmission;
- integrating the regulatory framework in day-to-day liquidity management and the long-term funding plan.

The Bank's balance sheet is well diversified and is aligned with the funding strategy. The core banking activities are funded entirely through personal and commercial deposits and through securitization programs. In addition to core deposits, the Bank also receives non-marketable deposits from governments and corporations. Wholesale funding is invested in cash and securities. The chart below shows the Bank's funding structure as at October 31, 2016.

Funding Structure
As at October 31, 2016
(billions of Canadian dollars)

Assets: 232.2

Liabilities and equity: 232.2

(1) This category comprises term funding products, marketable or non-marketable.
(2) This category comprises securities purchased under reverse repurchase agreements and securities borrowed.
(3) This category comprises subordinated debt and equity.

Diversified Funding Sources

The purpose of diversification by source, geographic location, currency, instrument, maturity and depositor is to mitigate liquidity and funding risk by ensuring that the Bank has in place alternative sources of funds that strengthen its capacity to withstand a variety of severe yet plausible institution-specific and market-wide shocks. To meet this objective, the Bank:

- takes funding diversification into account in the business planning process;
- maintains a variety of funding programs to access different markets;
- sets limits on funding concentration;
- maintains strong relationships with fund providers;
- is active in various funding markets of all tenors;
- identifies and monitors the main factors that affect the ability to raise funds.

The Bank is active in the following funding programs:

- Canadian dollar Senior Unsecured Debt;
- U.S. dollar Senior Unsecured Debt;
- Canadian Medium Term Note Shelf;
- U.S. dollar Commercial Paper programs;
- U.S. dollar Certificates of Deposit;
- Euro Medium Term Note program;
- Canada Mortgage and Housing Corporation securitization programs;
- Canadian Credit Card Trust II;
- Legislative Covered Bond program.

The table below presents the residual contractual maturities of the Bank's wholesale funding. The information has been presented in accordance with the categories recommended by the EDTF for comparison purposes with other banks.

Residual Contractual Maturities of Wholesale Funding[1]

(millions of Canadian dollars)								As at October 31, 2016
	1 month or less	Over 1 month to 3 months	Over 3 months to 6 months	Over 6 months to 12 months	Subtotal 1 year or less	Over 1 year to 2 years	Over 2 years	Total
Deposits from banks[2]	948	17	34	4	1,003	–	–	1,003
Certificates of deposit and commercial paper[3]	1,587	1,655	1,074	1,007	5,323	168	–	5,491
Asset-backed commercial paper	–	–	–	–	–	–	–	–
Senior unsecured medium-term notes[4]	81	860	2,419	3,184	6,544	3,599	5,731	15,874
Senior unsecured structured notes	–	–	–	–	–	13	2,927	2,940
Covered bonds and asset-backed securities								
Mortgage securitization	–	1,341	324	1,655	3,320	2,465	14,346	20,131
Covered bonds	–	–	–	–	–	1,005	5,663	6,668
Securitization of credit card receivables	424	–	–	–	424	–	873	1,297
Subordinated liabilities[5]	–	–	1,003	–	1,003	–	9	1,012
Other[6]	3,167	7	–	–	3,174	–	–	3,174
	6,207	3,880	4,854	5,850	20,791	7,250	29,549	57,590
Secured funding	424	1,341	324	1,655	3,744	3,470	20,882	28,096
Unsecured funding	5,783	2,539	4,530	4,195	17,047	3,780	8,667	29,494
	6,207	3,880	4,854	5,850	20,791	7,250	29,549	57,590
As at October 31, 2015	5,196	4,901	6,623	7,312	24,032	9,187	27,801	61,020

(1) Bankers' acceptances are not included in this table.
(2) Deposits from banks include all non-negotiable term deposits from banks.
(3) Includes bearer deposit notes.
(4) Certificates of deposit denominated in euros are included in senior unsecured medium-term notes.
(5) Subordinated debt is presented in this table but the Bank does not consider it as part of its wholesale funding.
(6) The *Other* item includes non-negotiable term deposits from non-bank financial institutions such as broker-dealers, pension funds and trust companies.

Operational Risk Management

Operational risk is the risk of loss resulting from an inadequacy or a failure ascribable to people, processes, technology or external events. Operational risk exists for every Bank activity. Theft, fraud, unauthorized transactions, system errors, human error, amendments to or misinterpretation of laws and regulations, litigation or disputes with clients or property damage are just a few examples of events likely to cause financial loss, harm the Bank's reputation or lead to punitive damages or regulatory penalties or sanctions.

Although operational risk cannot be eliminated entirely, it can be managed in a thorough and transparent manner to keep it at an acceptable level. The Bank's operational risk management framework is built on the concept of three lines of defence and provides a clear allocation of responsibilities to all levels of the organization, as mentioned below.

Operational Risk Management Framework

By identifying, assessing and monitoring operational risk, business units and corporate units can:

- recognize and understand the inherent and residual risks to which their activities and operations are exposed;
- identify measures for keeping such risks at an acceptable level;
- manage the risks proactively and continuously.

The main tools developed for purposes of this framework are described below.

Collection and Analysis of Data on Operational Losses Incurred by the Bank

The Operational and Reputation Risk Unit applies a process, across the Bank and its subsidiaries, for collecting and compiling data on internal operational losses. This data is entered into a centralized database and includes the amount of each loss, the type of risk involved, a description of the event that caused the loss, and the date of the loss, making it possible to better understand the fundamental causes of this type of loss and develop mitigation strategies. During fiscal years 2016 and 2015, there were no material losses resulting from an operational risk event.

Collection and Analysis of Data on External Operational Events Observed in the Financial Industry

The Bank collects and analyzes information reported in the media on significant operational events experienced by other financial institutions in order to assess the effectiveness of its own operational risk management practices and reinforce them, if necessary.

Operational Risk Self-Assessment

The operational risk self-assessment program gives each business unit and corporate unit the means to proactively identify and assess new or major operational risks to which they are exposed, evaluate the effectiveness of mitigating controls, and develop action plans to keep such risks at acceptable levels.

Key Risk Indicators

The business units and corporate units define key indicators associated with their main operational risks. The key indicators are used to monitor operational risk profiles and are related to critical thresholds that, once reached, result in action by management. Using key risk indicators, the business units and corporate units can track risks and proactively detect any adverse change in risk exposure.

Specialized Risk Assessment Programs

Certain specialized groups have implemented programs with their own risk-specific policies and procedures as well as oversight mechanisms to ensure they are adhered to. Such specialized programs exist for:

- management of financial reporting risk;
- management of technological and information security risks;
- management of business continuity;
- management of risks related to third parties;
- fraud risk management;
- model risk management;
- review and approval of new products and activities;
- information confidentiality.

Operational Risk Reports and Disclosures

The Operational and Reputation Risk Unit regularly reports to the Operational Risk Management Committee, to the GRC, and to the RMC on the status of operational risk across the Bank, on the measures taken with respect to the risks, and on the material exposures to losses and emerging risks in order to ensure management accountability and attention is maintained over current and emerging issues. This reporting enhances the transparency and proactive management of major operational risk factors.

Insurance Program

In order to protect itself against any material losses related to its exposure to unforeseeable operational risks, the Bank also has adequate insurance, the nature and amount of which meet its coverage requirements.

Regulatory Compliance Risk Management

Regulatory compliance risk is the risk of the Bank or its employees failing to comply with the regulatory requirements in effect where the Bank does business, both in Canada and internationally. Regulatory risk is present in all of the daily operations of each Bank segment. A situation of regulatory non-compliance can adversely affect the Bank's reputation and result in penalties, fines and sanctions or increased oversight by regulators.

The Bank operates in a highly regulated industry. The diversity of its activities and its geographical reach in Canada and abroad add to this complexity, since its operations are overseen by various regulatory bodies and self-regulatory organizations.

Organizational Structure of Compliance
The Senior Vice-President and Chief Compliance Officer oversees the compliance program for all the Bank's segments. The Chief Anti-Money Laundering Officer reports directly to the CCO.

Regulatory Compliance Framework
To ensure sound management of regulatory compliance, the Bank favours proactive approaches, incorporates regulatory requirements into its day-to-day operations, and communicates regularly with its employees to remind them of the importance of complying with regulations.

Regulatory risk management ensures that events stemming from regulatory non-compliance that could have an impact on the Bank's activities and reputation are proactively identified and understood and that mitigating strategies are implemented. It also provides reasonable assurance that the Bank is in compliance, in all material respects, with the regulatory requirements in effect where it does business, both in Canada and internationally.

The implementation of a regulatory compliance risk management framework across the Bank is entrusted to the Compliance Service, which has the following mandate:

- make sure that policies and procedures that ensure compliance with the regulations in effect in all territories where the Bank and its subsidiaries operate, including regulations related to money laundering and terrorist financing activities, are in place and operational;
- develop compliance training and information programs for employees of the Bank and of its subsidiaries and foreign centres;
- exercise independent oversight of Bank and subsidiary compliance with the policies and procedures;
- report relevant matters with respect to compliance and anti-money laundering and anti-terrorist financing to the Bank's Board.

The Bank holds itself to high regulatory compliance risk management standards in order to earn the trust of its clients, its shareholders, the market and the general public.

Described below are the main regulatory developments that have been monitored over the past year.

Recovery and Resolution Planning
As part of the regulatory measures used to manage systemic risks, D-SIBs are required to have in place recovery and resolution plans. A recovery plan is essentially a road map that guides the recovery of a Bank in the event of severe financial stress; conversely, a resolution plan guides its orderly wind-down in the event of failure when recovery is no longer an option. The Bank develops and periodically updates its recovery and resolution plans to prepare for these high-risk, but low-probability events. These plans are presented to its domestic regulatory authorities. The Bank also works on documenting a resolution plan with Canada Deposit Insurance Corporation (CDIC) that would ensure orderly winding down of the Bank's operations.

Liquidity Reforms
To promote a more resilient banking sector, more stringent international rules on liquidity were introduced by the BCBS through Basel III and implemented at a national level. In Canada, the liquidity rules began phasing in during 2015. For additional information, see the Liquidity and Funding Risk Management section of this MD&A.

Increased Regulatory Oversight for D-SIBs
Since six major Canadian banks were designated as D-SIBs in March 2013, regulatory oversight has increased. The regulatory agencies are paying close attention to capital ratio determination approaches, guaranteed mortgage lending, risk data aggregation and risk reporting (RDARR), stress test scenarios, the implementation of anti-money laundering and anti-terrorism financing (AML/ATF) programs, recovery and resolution planning (living will) and the implementation of effective anti-cyberterrorism measures. The Bank is making every effort to meet the regulatory requirements and is incorporating these initiatives into its day-to-day business management.

Risk Data Aggregation and Risk Reporting (RDARR)
To strengthen risk data aggregation and risk reporting practices, the BCBS issued new principles for effective risk data aggregation and reporting in January 2013. Designated D-SIBs are required to implement these new standards by December 31, 2016.

Over-The-Counter (OTC) Derivative Financial Instrument Reforms
The Canadian Securities Administrators (CSA) and OSFI are piloting the implementation of the regulatory framework stemming from the G20 commitments related to over-the-counter derivatives. The main components of the regulatory reform are:

- reporting of derivatives data;
- clearing of certain transactions through central counterparties;
- capital and margin requirements for transactions that are exempted from mandatory clearing;
- trading of derivatives on electronic platforms, registration of market participants and protection of customer positions and collateral.

The Bank is closely monitoring the implementation of these regulatory initiatives in Canada, the United States and Europe in order to ensure that the necessary measures are adopted to achieve compliance with the new requirements applicable to its activities on over-the-counter markets.

Anti-Money Laundering and Anti-Terrorism Financing (AML/ATF)
In June 2016, the federal government amended the regulations under the *Proceeds of Crime (Money Laundering) and Terrorist Financing Act.* These amendments provide a regulatory framework to govern the treatment of politically exposed domestic persons and provide additional components to be considered in risk assessments. They also include new identity verification and electronic signatures provisions for which the Financial Transaction and Reports Analysis Centre of Canada (FINTRAC) has also released a guideline describing *Methods to Ascertain the Identity of Individual Clients*. There will be a transition period until June 2017.

Common Reporting Standard (CRS)
The Standard for Automatic Exchange of Financial Account Information, known as the Common Reporting Standard, was developed by the Organization for Economic Co-operation and Development (OECD) at the request of the G8 and G20 in order to fight tax evasion. Canada and about 100 other jurisdictions have confirmed their membership. Under this new standard, the tax authorities of member jurisdictions will provide the Canada Revenue Agency with information on accounts held by Canadian residents in their countries. The CRA will provide, on a reciprocal basis, foreign tax authorities with similar information on accounts held in Canada by residents of those countries.

Canada is planning to implement this standard as of July 1, 2017, allowing the first information exchanges to begin in 2018.

Reputation Risk Management

Reputation risk is the risk that the Bank's operations or practices will be judged negatively by the public, whether that judgment is with or without basis, thereby adversely affecting the perception, image or trademarks of the Bank, potentially resulting in costly litigation or loss of income. Reputation risk generally arises from a deficiency in managing another risk. The Bank's reputation may, for example, be adversely affected by non-compliance with laws and regulations or by process failures. All risks must therefore be managed effectively in order to protect the Bank's reputation.

The Bank seeks to ensure that its employees are constantly aware of the potential repercussions of their actions on the Bank's reputation and image. In addition to the previously discussed operational risk management initiatives, a variety of mechanisms are in place to support sound reputation risk management, including codes of professional conduct applicable to all employees, policies regarding ethics and corporate governance and appropriate training programs.

The Bank also has a policy, approved by the Board, that covers reputation risk stemming from complex structured financing transactions and other transactions that may give rise to reputation issues. The policy sets the reputation risk management rules and practices applicable to these transactions. The policy is complemented by the special provisions of the new products and activities policy, which determines the approvals required by the various committees that assess risk whenever new products or activities are introduced within the business units. These provisions are intended, among other things, to provide oversight for the management of reputation risk, which may be material for such products or activities. The new products and activities policy requires that any new product or activity for which reputation risk is determined to be high be submitted to the GRC for approval.

The activities of the Compliance Service, Legal Affairs Department, Public Relations Department and Investor Relations Department complete the reputation risk management framework.

Strategic Risk Management

Strategic risk is the risk of a loss arising from inappropriate strategic orientations, improper execution or ineffective response to economic or financial changes. The corporate strategic plan is developed by the Office of the President, in alignment with the Bank's overall risk appetite, and approved by the Board. Once approved, the initiatives of the strategic plan are monitored regularly to ensure that they are progressing according to plan. If not, strategies could be reviewed or adjusted if deemed appropriate.

In addition, the Bank has a specific Board-approved policy for strategic investments, which are defined as purchases of business assets or acquisitions of significant interests in an entity for the purposes of acquiring control or creating a long-term relationship. As such, acquisition projects and other strategic investments are analyzed through a due diligence process to ensure that these investments are aligned with the corporate strategic plan and the Bank's risk appetite.

Environmental Risk Management

Environmental risk is the risk of a loss or damage to the Bank's reputation arising from environmental concerns related to the Bank or its clients. Environmental risk is often associated with credit risk and operational risk.

Environmental risk means any impact of environmental problems that leads to a loss of financial or operational value or affects the Bank's reputation. This risk arises from commercial and operating activities. For example, environmental issues related to the purchase or sale of contaminated properties by clients of the Bank or the deployment of large-scale projects could expose the Bank to credit and reputation risk. The Bank would also be forced to deal with operational risk and the risk related to the legal environment when environmental issues arise in its branches or administrative offices.

In this context, the Risk Management Group develops requirements that are prescribed in its internal policies in order to reveal, assess, control and monitor environmental risk. For their part, the business segments and corporate units must integrate requirements and controls related to the management of environmental risk in their activities. The Risk Management Group monitors its application and regularly reviews the standards.

CRITICAL ACCOUNTING ESTIMATES

A summary of the significant accounting policies used by the Bank is presented in Note 1 to the consolidated financial statements of this Annual Report. Some of these accounting policies are considered critical given their importance to the presentation of the Bank's financial position and operating results and require subjective and complex judgments and estimates on matters that are inherently uncertain. Any change in these judgments and estimates could have a significant impact on the Bank's consolidated financial statements. The critical accounting estimates are as follows.

Impairment of Financial Assets

At the end of each reporting period, the Bank determines whether there is objective evidence of impairment of a financial asset or group of financial assets. There is objective evidence of impairment when one or more loss events occur after the initial recognition of the asset and prior to or on the balance sheet date and these events adversely affect the estimated future cash flows of the financial assets in question. Management must exercise judgment to determine whether certain events or circumstances constitute objective evidence of impairment and to estimate the timing of future cash flows.

Available-for-Sale Securities

Available-for-sale securities are reviewed for objective evidence of impairment at the end of each reporting period, which is an exercise that requires the use of judgment and estimates. The Bank considers all available objective evidence of impairment, including observable data on loss events such as: a significant financial difficulty of the issuer, a breach of contract such as a default, and situations involving bankruptcy or other financial reorganization. In addition to these loss events, objective evidence of impairment for an equity security also includes information about significant changes with an adverse effect that have taken place in the technological, market, economic, or legal environment in which the issuer operates, and indicates that the cost of the investment in the equity security may not be recovered. For equity securities, a significant or prolonged decline in fair value below cost is also objective evidence of impairment.

If there is objective evidence of impairment, any amount previously recognized in *Accumulated other comprehensive income* is reclassified to *Non-interest income* in the Consolidated Statement of Income. This amount is determined as the difference between the acquisition cost (net of any capital repayments and amortization) and the current fair value of the asset less any impairment loss on that investment previously recognized in the Consolidated Statement of Income.

This accounting estimate has an impact, across all business segments, on *Available-for-sale securities* on the Consolidated Balance Sheet, on *Other comprehensive income* in the Consolidated Statement of Comprehensive Income, and on *Non-interest income* in the Consolidated Statement of Income.

Allowances for Credit Losses

A loan, except credit card receivables, is considered impaired if there is objective evidence of impairment and, in management's best estimate, the timely collection of principal and interest is no longer reasonably assured, or when a payment is contractually 90 days past due, unless the loan is fully secured and collection efforts are reasonably expected to result in repayment of the debt within 180 days. For credit card receivables, they are written off when payment is 180 days in arrears. Loans that are insured or fully guaranteed by a Canadian government (federal or provincial) or by a Canadian government agency are considered impaired when they are more than 365 days in arrears.

Allowances for credit losses are management's best estimate of losses in its credit portfolio as at the balance sheet date. They relate primarily to loans but may also cover the credit risk associated with deposits with financial institutions, loan substitute securities, credit instruments such as acceptances, and off-balance-sheet items such as commitments to extend credit, letters of guarantee and letters of credit. Management reviews portfolio credit quality on an ongoing basis to ensure that the amount of the allowance for credit losses is adequate.

The allowances for credit losses on impaired loans are calculated on a loan-by-loan basis and assessed either individually or collectively based on the portfolio's historical net loss experience. The allowance for credit losses on non-impaired loans is assessed collectively taking into account the Bank's overall credit portfolio.

When assessing allowances for credit losses, management must use its judgment in establishing reasonable assumptions and subjective and critical estimates concerning the probability of default, probable losses in the event of default, the amount at risk in the event of default, the amount and dates of future cash flows, the value of the underlying collateral and realization costs. Any changes in these estimates and assumptions, as well as the use of different, but equally reasonable, estimates and assumptions, could have an impact on the allowances for credit losses and, consequently, on the provisions for credit losses for the year. A description of the methods used to calculate the allowances for credit losses can be found in Note 1 to the consolidated financial statements. All business segments are affected by this accounting estimate.

Fair Value of Financial Instruments

When they are initially recognized, all financial assets and liabilities, including derivative financial instruments, are recorded at fair value on the Consolidated Balance Sheet. In subsequent periods, they are measured at fair value, except for items classified in the following categories, which are measured at amortized cost using the effective interest rate method: financial assets held to maturity, loans and receivables, and financial liabilities at amortized cost. The fair value of a financial instrument is the price that would be received to sell a financial asset or paid to transfer a financial liability in an orderly transaction in the principal market at the measurement date under current market conditions (i.e., an exit price).

Unadjusted quoted prices in active markets, based on bid prices for financial assets and offered prices for financial liabilities, provide the best evidence of fair value. A financial instrument is considered quoted in an active market when prices in exchange, dealer, broker or principal-to-principal markets are accessible at the measurement date. An active market is one where transactions occur with sufficient frequency and volume to provide quoted prices on an ongoing basis.

When there is no quoted price in an active market, the Bank uses another valuation technique that maximizes the use of relevant observable inputs and minimizes the use of unobservable inputs. The chosen valuation technique incorporates all the factors that market participants would take into account in pricing a transaction. Judgment is required in applying a large number of acceptable valuation techniques and estimates to determine fair value. The estimated fair value reflects market conditions on the valuation date and, consequently, may not be indicative of future fair value.

The best evidence of the fair value of a financial instrument at initial recognition is the transaction price, i.e., the fair value of the consideration received or paid. If there's a difference between the fair value at initial recognition and the transaction price, and the fair value is determined using a valuation technique based on observable market inputs or, in the case of a derivative, if the risks are fully offset by other contracts entered into with third parties, this difference is recognized in the Consolidated Statement of Income. In other cases, the difference between the fair value at initial recognition and the transaction price is deferred on the Consolidated Balance Sheet. The amount of the deferred gain or loss is recognized over the term of the financial instrument. The unamortized balance is immediately recognized in net income when (i) observable market inputs can be obtained and support the fair value of the transaction, (ii) the risks associated with the initial contract are substantially offset by other contracts entered into with third parties, (iii) the gain or loss is realized through a cash receipt or payment, or (iv) the transaction matures or is cancelled before maturity.

In certain cases, measurement adjustments are recognized to address factors that market participants would use at the measurement date to determine fair value but that are not included in the measurement technique due to system limitations or uncertainty surrounding the measure. These factors include, but are not limited to, the unobservable nature of inputs used in the valuation model, assumptions about risk such as market risk, credit risk, or risk related to the valuation model and future administration costs. The Bank may also consider market liquidity risk when determining the fair value of financial instruments when it believes these instruments could be disposed of for a consideration below the fair value otherwise determined due to a lack of market liquidity or an insufficient volume of transactions in a given market. The measurement adjustments also include the funding valuation adjustment applied to derivative financial instruments to reflect the market implied cost or benefits of funding collateral for uncollateralized or partly collateralized transactions.

IFRS establishes a fair value hierarchy that classifies the inputs used in financial instrument fair value measurement techniques according to three levels. The fair value hierarchy has the following levels:

– Level 1: Inputs corresponding to unadjusted quoted prices in active markets for identical assets and liabilities and accessible to the Bank at the measurement date. These instruments consist primarily of equity securities, derivative financial instruments traded in active markets, and certain highly liquid debt securities actively traded in over-the-counter markets.
– Level 2: Valuation techniques based on inputs, other than the quoted prices included in Level 1 inputs, that are directly or indirectly observable in the market for the asset or liability. These inputs are quoted prices of similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; inputs other than quoted prices used in a valuation model that are observable for that instrument; and inputs that are derived principally from or corroborated by observable market inputs by correlation or other means. These instruments consist primarily of certain loans, certain deposits, derivative financial instruments traded in over-the-counter markets, certain debt securities, certain equity securities whose value is not directly observable in an active market, liabilities related to transferred receivables as well as certain other liabilities.
– Level 3: Valuation techniques based on one or more significant inputs that are not observable in the market for the asset or liability. The Bank classifies financial instruments in Level 3 when the valuation technique is based on at least one significant input that is not observable in the markets. The valuation technique may also be partly based on observable market inputs. Financial instruments whose fair values are classified in Level 3 consist of restructured notes, certain investments in asset-backed debt securities, investments in hedge funds, certain derivative financial instruments, equity and debt securities of private companies, and certain deposits (structured deposit notes).

Establishing fair value is an accounting estimate and has an impact on *Securities at fair value through profit or loss*, certain *Loans*, *Available-for-sale securities*, *Obligations related to securities sold short*, *Derivative financial instruments*, and financial instruments designated at fair value through profit or loss on the Consolidated Balance Sheet. This estimate also has an impact on *Non-interest income* in the Consolidated Statement of Income of the Financial Markets segment and of the *Other* heading. Lastly, this estimate has an impact on *Other comprehensive income* in the Consolidated Statement of Comprehensive Income. For additional information on the fair value determination of financial instruments, see Notes 3 and 6 to the consolidated financial statements.

Impairment of Non-Financial Assets

Premises and equipment and intangible assets with finite useful lives are tested for impairment when events or changes in circumstances indicate that their carrying value may not be recoverable. At the end of each reporting period, the Bank determines whether there is an indication that premises and equipment or intangible assets with finite useful lives may be impaired. Goodwill and intangible assets that are not yet available for use or that have indefinite useful lives are tested for impairment annually or more frequently if there is an indication that the asset might be impaired.

An asset is tested for impairment by comparing its carrying amount with its recoverable amount. The recoverable amount must be estimated for the individual asset. Where it is not possible to estimate the recoverable amount of an individual asset, the recoverable amount of the cash-generating unit (CGU) to which the asset belongs will be determined. Goodwill is always tested for impairment at the level of a CGU or a group of CGUs. A CGU is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. The Bank uses judgment to identify CGUs.

An asset's recoverable amount is the higher of fair value less costs to sell and the value in use of the asset or CGU. Value in use is the present value of expected future cash flows from the asset or CGU. The recoverable amount of the CGU is determined using valuation models that consider various factors such as projected future cash flows, discount rates and growth rates. The use of different estimates and assumptions in applying the impairment tests could have a significant impact on income. If the recoverable amount of an asset or a CGU is less than its carrying amount, the carrying amount is reduced to its recoverable amount and an impairment loss is recognized in *Non-interest expenses* in the Consolidated Statement of Income.

Management exercises judgment when determining whether there is objective evidence that premises and equipment or intangible assets with finite useful lives may be impaired. It also uses judgment in determining to which CGU or group of CGUs an asset or goodwill is to be allocated. Moreover, for impairment assessment purposes, management must make estimates and assumptions regarding the recoverable amount of non-financial assets, CGUs or a group of CGUs. For additional information on the estimates and assumptions used to calculate the recoverable amount of an asset or CGU, see Note 11 to the consolidated financial statements.

Any changes to these estimates and assumptions may have an impact on the recoverable amount of a non-financial asset and, consequently, on impairment testing results. These accounting estimates have an impact on *Premises and equipment*, *Intangible assets* and *Goodwill* reported on the Consolidated Balance Sheet. The aggregate impairment loss, if any, is recognized as a non-interest expense for the corresponding segment and presented in the *Other* item.

Employee Benefits – Pension Plans and Other Post-Employment Benefits

Pension plan and other post-employment plan expenses and obligations are actuarially determined using the projected benefit method prorated on service. The calculations incorporate management's best estimates of various actuarial assumptions such as discount rates, rates of compensation increase, health care cost trend rates, mortality rates and retirement age.

Remeasurements of these plans result in actuarial gains and losses related to the defined benefit obligation and the actual return on plan assets, excluding the net interest determined by applying a discount rate to the net asset or liability of the plans. Remeasurements are immediately recognized in *Other comprehensive income* and will not be subsequently reclassified to net income; these cumulative gains and losses are reclassified to *Retained earnings*.

The use of different assumptions could have a significant impact on the defined benefit asset (liability) presented in *Other assets (Other liabilities)* on the Consolidated Balance Sheet, on the pension plan and other post-employment benefit plan expenses presented in *Compensation and employee benefits* in the Consolidated Statement of Income, as well as on *Remeasurements of pension plans and other post-employment benefit plans* presented in *Other comprehensive income*. All business segments are affected by this accounting estimate. For additional information, including the significant assumptions used to determine the Bank's pension plan and other post-employment benefit plan expenses and the sensitivity analysis for significant plan assumptions, see Note 24 to the consolidated financial statements.

Income Taxes

The Bank makes assumptions to estimate income taxes as well as deferred tax assets and liabilities. This process includes estimating the actual amount of income taxes payable and evaluating tax loss carryforwards and temporary differences arising from differences between the values of the items reported for accounting and for income tax purposes. Deferred tax assets and liabilities, presented in *Other assets* and *Other liabilities* on the Consolidated Balance Sheet, are calculated according to the tax rates to be applied in future periods. Previously recorded deferred tax assets and liabilities must be adjusted when the date of the future event is revised based on current information. The Bank periodically evaluates deferred tax assets to assess recoverability. In the Bank's opinion, based on the information at its disposal, it is probable that all deferred tax assets will be realized prior to their expiration.

This accounting estimate affects *Income taxes* in the Consolidated Statement of Income for all business segments. For additional information on income taxes, see Notes 1 and 25 to the consolidated financial statements.

Litigation

In the normal course of business, the Bank and its subsidiaries are involved in various claims relating, among other matters, to loan portfolios, investment portfolios and supplier agreements, including court proceedings, investigations or claims of a regulatory nature, class actions or other legal remedies of varied natures. The recent developments in the main legal proceeding involving the Bank are as follows:

Watson

In 2011, a class action was filed in the Supreme Court of British Columbia against Visa Corporation Canada (Visa), MasterCard International Incorporated (MasterCard) as well as National Bank and a number of other financial institutions. The plaintiff is alleging that the credit card networks and financial institutions engaged in a price-fixing system to increase or maintain the fees paid by merchants on Visa and MasterCard transactions. In so doing, they would have been in breach of the *Competition Act*. An unspecified amount of compensatory and punitive damages is being claimed. Following a decision on March 27, 2014, the Court certified the class action in part. The decision was appealed. On August 19, 2015, the Court of Appeal for British Columbia issued a judgment and concluded that the class action be allowed to proceed while granting certain changes. This judgment was not appealed to the Supreme Court of Canada. Similar actions were filed in four other jurisdictions.

It is impossible to determine the outcome of the claims instituted or which may be instituted against the Bank and its subsidiaries. The Bank estimates, based on the information at its disposal, that while the amount of contingent liabilities pertaining to these claims, taken individually or in the aggregate, could have a material impact on the Bank's consolidated operating income for a particular period, it would not have a material adverse impact on the Bank's consolidated financial position.

Provisions are liabilities of uncertain timing and amount. A provision is recognized when the Bank has a present obligation (legal or constructive) arising from a past event, when it is probable that an outflow of economic resources will be required to settle the obligation and when the amount of the obligation can be reliably estimated. Provisions are based on the Bank's best estimates of the economic resources required to settle the present obligation, given all relevant risks and uncertainties, and, when it is significant, the effect of the time value of money.

The recognition of a litigation provision requires the Bank's management to assess the probability of loss and estimate any potential monetary impact. The Bank examines each litigation provision individually by considering the development of each case, its past experience in similar transactions and the opinion of its legal counsel. Each new piece of information can alter the Bank's assessment as to the probability and estimated amount of the loss and the extent to which it adjusts the recorded provision. Moreover, the actual settlement cost of these litigations can be significantly higher or lower than the amounts recognized.

Structured Entities

In the normal course of business, the Bank enters into arrangements and transactions with structured entities. Structured entities are entities designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, such as when voting rights relate solely to administrative tasks and the relevant activities are directed by means of contractual arrangements. A structured entity is consolidated when the Bank concludes, after evaluating the substance of the relationship and its right or exposure to variable returns, that it controls that entity. Management must exercise judgment in determining whether the Bank controls an entity. Additional information is provided in the *Securitization and Off-Balance-Sheet Arrangements* section of this MD&A (pages 36 and 37) and in Note 28 to the consolidated financial statements.

FUTURE ACCOUNTING POLICY CHANGES

The IASB issues revisions and amendments to a number of standards, some of which have already had an impact on the Bank and others that could have an impact in the future. The Bank is currently assessing the impact that adoption of the following standards will have on its consolidated financial statements. A summary of these amendments and the effective dates applicable to the Bank are presented below.

Effective Date – Early Adoption on November 1, 2017

IFRS 9 – *Financial Instruments*

In July 2014, the IASB issued a complete and final version of IFRS 9, which replaces the current standard on financial instruments. IFRS 9 sets out requirements for the classification and measurement of financial assets and financial liabilities, for the impairment of financial assets, and for general hedge accounting. Macro hedge accounting has been decoupled from IFRS 9 and will be considered and issued as a separate standard.

The IASB is requiring IFRS 9 to be applied as of November 1, 2018 and is permitting early adoption. On January 9, 2015, OSFI issued a final version of *Early Adoption of IFRS 9 Financial Instruments for Domestic Systemically Important Banks*, stating, however, that it expects Domestic Systemically Important Banks, a group that includes the Bank, to adopt IFRS 9 as of November 1, 2017. In general, IFRS 9 is to be applied retrospectively.

The Bank will therefore adopt the IFRS 9 provisions as of November 1, 2017. Its first financial statements presented in accordance with these provisions will be its unaudited interim condensed consolidated financial statements for the quarter ending January 31, 2018 and will include an opening consolidated balance sheet as at November 1, 2017.

In preparation for the adoption of IFRS 9, the Bank has established an enterprise-wide project, assembled a dedicated team, and established a formal governance structure. It has also implemented a detailed project plan that sets out the key activities and a corresponding schedule. The project is proceeding according to schedule. As interpretations of the new standard are still evolving, the Bank continues to monitor the interpretations and revisit its preliminary conclusions.

Project Status

Several committees have been created to ensure project success and optimize decision-making regarding the interpretations and choices to be made for the adoption of IFRS 9. The project team is made up of qualified resources in different areas of expertise to ensure a thorough analysis of all aspects of the new standard and its financial, operational and technological impacts.

The project follows the execution framework of the Bank's Project Office and Strategic Initiatives Office. The project team provides regular status reports to the Executive Committee and to the Steering Committee, which are made up of senior levels of management and experts from all relevant departments. Reports are also provided to the Bank's external auditors.

The Advisory Committee is made up of professional accountants, who are members of the Bank's staff and who have in-depth knowledge of accounting standards and the Bank's activities. They are involved in working groups of the Canadian Bankers Association where representatives of the major Canadian banks discuss issues and interpretations related to the new standard. The Bank also takes part in meetings with OSFI, which are organized to discuss these same issues and interpretations. The experts remain in constant contact with outside advisors in order to pool their understanding and their interpretations. Moreover, workshops are organized to analyze the repercussions of the implementation of IFRS 9 and to circulate information to the stakeholders affected by the new standard. Lastly, a training plan has been developed for staff, management and members of the Board of Directors.

The Bank's Financial Governance and Internal Audit departments are accompanying the project team through the above-described activities, allowing for an ongoing review of the Bank's internal controls over financial reporting.

Classification and Measurement

IFRS 9 provides a single model for financial asset classification and measurement that is based on both the business model for managing financial assets and the contractual cash flow characteristics of the financial assets. These factors determine whether the financial assets are measured at amortized cost, fair value through other comprehensive income or fair value through profit or loss.

IFRS 9 requires that all debt instrument financial assets, including loans, that do not meet a "solely payment of principal and interest" (SPPI) test, including those that contain embedded derivatives, be classified as at fair value through profit or loss at initial recognition. For those that meet the SPPI test, classification at initial recognition will be determined based on the business model under which these assets are managed. Debt instruments that are managed on a "held for trading" or fair value basis will be classified as at fair value through profit or loss. Debt instruments that are managed on a "hold to collect and for sale" basis will be classified as at fair value through other comprehensive income. Finally, those that are managed on a "hold to collect" basis will be classified as at amortized cost. In addition, IFRS 9 also includes an option to irrevocably designate, at initial recognition, a debt instrument as measured at fair value through profit or loss if doing so eliminates or significantly reduces an accounting mismatch and if OSFI requirements are also met.

Under IFRS 9, all equity instrument financial assets must be classified as at fair value through profit or loss unless, at initial recognition, an irrevocable election is made to classify the equity instrument as at fair value through other comprehensive income, with no subsequent reclassification of gains and losses to net income. Derivatives will continue to be measured at fair value through profit or loss.

The classification and measurement of financial liabilities remain essentially unchanged under IFRS 9, except for financial liabilities designated as measured at fair value through profit or loss under the fair value option. Once this fair value election is made, changes in fair value attributable to changes in an entity's own credit risk must be recognized in other comprehensive income rather than in net income. The Bank adopted the own credit risk provisions of IFRS 9 on February 1, 2016.

Impairment

IFRS 9 introduces a new, single impairment model for financial assets not measured at fair value through profit or loss that requires the recognition of expected credit losses (ECL) rather than incurred losses as applied under the current standard. The ECL model also applies to loan commitments and financial guarantees that are not measured at fair value through profit or loss. Currently, impairment losses are recognized if, and only if, there is objective evidence of impairment as a result of one or more loss events that have occurred after initial recognition of the asset and that loss event has a detrimental impact on the estimated future cash flows of the asset that can be reliably estimated. If there is no objective evidence of impairment for an individual financial asset, the financial asset is included in a group of assets with similar credit risk characteristics and collectively assessed for impairment losses incurred but not identified. Under IFRS 9, ECLs will be recognized in profit or loss before a loss event has occurred.

Under the current standard, incurred losses are measured by incorporating reasonable and supportable information about past events and current conditions. Under IFRS 9, the ECL model, which is forward-looking, also requires that forecasts of future events and economic conditions be used in determining significant increases in credit risk and in measuring expected losses. ECLs are measured as the probability-weighted present value of expected cash shortfalls over the remaining expected life of the financial instrument.

The ECL model contains a three-stage approach that is based on the change in the credit quality of assets since initial recognition. If, at the reporting date, the credit risk of non-impaired financial instruments has not increased significantly since initial recognition, these financial instruments are classified in stage one, and a loss allowance that is measured, at each reporting date, at an amount equal to 12-month expected credit losses is recorded. When there is a significant increase in credit risk since initial recognition, these non-impaired financial instruments are migrated to stage two, and a loss allowance that is measured, at each reporting date, at an amount equal to lifetime expected credit losses is recorded. In subsequent reporting periods, if the credit risk of the financial instrument improves such that there is no longer a significant increase in credit risk since initial recognition, the ECL model requires reverting to recognition of 12-month expected credit losses. To assess whether or not the credit risk of a financial instrument has increased significantly, the risk of default occurring over its expected life as at the reporting date is compared with the risk of default occurring over its expected life on the date of initial recognition, and reasonable and supportable information indicative of significant increases in credit risk since initial recognition is considered. When one or more events that have a detrimental impact on the estimated future cash flows of a financial asset have occurred, the financial asset is considered credit-impaired and is migrated to stage three, and an allowance equal to lifetime expected losses continues to be recorded or the financial asset is written off.

The IFRS 9 expected loss calculation will leverage, where appropriate, the Bank's existing expected loss model parameters used for regulatory purposes, namely: probability of default (PD), loss given default (LGD) and exposure at default (EAD). Adjustments to these parameters will be made to comply with IFRS 9 requirements. The main differences are summarized in the table below.

	Regulatory Capital	IFRS 9
PD	Through-the-cycle 12-month PD calibrated on a long run average PD throughout a full economic cycle. The default backstop is generally 90 days past due.	Point-in-time 12-month or lifetime PD based on past experience, current conditions and relevant forward-looking information. The default backstop will generally be 90 days past due.
LGD	Downturn LGD based on losses that would be expected in an economic downturn and subject to certain regulatory floors. All collection costs are included.	Expected LGD based on past experience, current conditions and relevant forward-looking information. The value of collateral and other credit risk mitigants are incorporated as appropriate and conservatism and floors are excluded.
EAD	Based on the drawn balance plus expected utilization of any undrawn portion prior to default, and cannot be lower than the current balance.	Represents the expected balance at default across the lifetime horizon on forward-looking expectations.
Other		Expected credit losses are discounted from the default date to the reporting date.

In December 2015, the Basel Committee on Banking Supervision issued *Guidance on Credit Risk and Accounting for Expected Credit Losses*. In June 2016, OSFI issued the final guideline on *IFRS 9 Financial Instruments and Disclosures*, setting out its expectations regarding IFRS 9 application.

Hedging

As for the new hedge accounting model, it provides better alignment of hedge accounting with risk management activities. However, the current hedge accounting requirements may continue to be applied until the IASB finalizes its macro hedge accounting project.

Effective Date – November 1, 2018

IFRS 15 – *Revenue From Contracts With Customers*

In May 2014, the IASB issued a new standard, IFRS 15, which replaces the current revenue recognition standards and interpretations. IFRS 15 provides a single comprehensive model to use when accounting for revenue arising from contracts with customers. The new model applies to all contracts with customers except those that are within the scope of other IFRS standards such as leases, insurance contracts and financial instruments. IFRS 15 is to be applied retrospectively.

At its meeting on July 22, 2015, the IASB unanimously confirmed its proposal to defer the effective date of IFRS 15 to fiscal years beginning on or after January 1, 2018. Early application is still permitted.

Effective Date – November 1, 2019

IFRS 16 – *Leases*

In January 2016, the IASB issued a new standard, IFRS 16 – *Leases*. The new standard requires lessees to recognize most leases on the balance sheet using a single model, thereby eliminating the distinction between operating and finance leases. Lessor accounting, however, remains similar to current accounting practice, and the distinction between operating and finance leases is retained. Early application is permitted if IFRS 15 – *Revenue From Contracts With Customers* has also been applied.

ADDITIONAL FINANCIAL INFORMATION

TABLE 1 – QUARTERLY RESULTS

(millions of Canadian dollars, except per share amounts)					2016
	Total	Q4	Q3	Q2	Q1
Statement of income data					
Net interest income[1]	2,956	769	772	709	706
Non-interest income[1]	2,884	800	785	716	583
Total revenues	5,840	1,569	1,557	1,425	1,289
Provisions for credit losses	484	59	45	317	63
Non-interest expenses	3,875	1,159	937	876	903
Income taxes	225	44	97	22	62
Net income	1,256	307	478	210	261
Non-controlling interests	75	18	18	17	22
Net income attributable to the Bank's shareholders	1,181	289	460	193	239
Earnings per common share					
Basic	$3.31	$0.79	$1.32	$0.52	$0.68
Diluted	3.29	0.78	1.31	0.52	0.67
Dividends (per share)					
Common	$2.18	$0.55	$0.55	$0.54	$0.54
Preferred					
Series 16	–	–	–	–	–
Series 20	–	–	–	–	–
Series 24	–	–	–	–	–
Series 26	–	–	–	–	–
Series 28	0.9500	0.2375	0.2375	0.2375	0.2375
Series 30	1.0250	0.2562	0.2563	0.2562	0.2563
Series 32	0.9750	0.2437	0.2437	0.2438	0.2438
Series 34	1.1373	0.3500	0.3500	0.4373	–
Series 36	0.5733	0.5733	–	–	–
Return on common shareholders' equity	11.7 %	11.0 %	18.7 %	7.7 %	9.5 %
Total assets		232,206	229,896	220,734	219,301
Long-term financial liabilities[2]		1,012	1,014	1,015	1,021
Net impaired loans		281	251	300	234
Number of common shares outstanding[3] *(thousands)*					
Average – Basic	337,460	337,882	337,553	337,329	337,074
Average – Diluted	339,895	341,018	340,196	339,530	339,265
End of period		338,053	336,826	337,418	337,535
Per common share					
Book value		$28.52	$28.39	$27.75	$27.77
Share price					
High	47.88	47.88	46.65	45.56	44.11
Low	35.83	44.14	40.98	35.95	35.83
Number of employees[4]		21,770	21,731	20,105	20,114
Number of branches in Canada		450	453	453	453

(1) The prior year figures have been adjusted to reflect a reclassification of certain amounts between the *Non-interest income – Credit fees* item and the *Net interest income* item in order to better reflect the nature of the income reported in the Personal and Commercial segment.
(2) Subordinated debt.
(3) The fiscal 2014 figures have been adjusted to include the stock dividend paid in 2014.
(4) Number of employees includes employees from the Credigy Ltd. and Advanced Bank of Asia Limited subsidiaries.

				2015					2014
Total	Q4	Q3	Q2	Q1	Total	Q4	Q3	Q2	Q1
2,682	695	672	650	665	2,584	651	652	658	623
3,064	710	838	771	745	2,880	713	808	618	741
5,746	1,405	1,510	1,421	1,410	5,464	1,364	1,460	1,276	1,364
228	61	56	57	54	208	57	49	51	51
3,665	960	906	936	863	3,423	929	879	799	816
234	37	95	24	78	295	48	91	64	92
1,619	347	453	404	415	1,538	330	441	362	405
70	19	17	16	18	69	18	18	17	16
1,549	328	436	388	397	1,469	312	423	345	389
$4.56	$0.96	$1.29	$1.14	$1.17	$4.36	$0.92	$1.26	$1.02	$1.16
4.51	0.95	1.28	1.13	1.16	4.32	0.91	1.24	1.01	1.15
$2.04	$0.52	$0.52	$0.50	$0.50	$1.88	$0.48	$0.48	$0.46	$0.46
–	–	–	–	–	1.2125	0.3031	0.3031	0.3032	0.3031
1.5000	0.3750	0.3750	0.3750	0.3750	1.5000	0.3750	0.3750	0.3750	0.3750
–	–	–	–	–	0.4125	–	–	–	0.4125
–	–	–	–	–	0.4125	–	–	–	0.4125
0.9500	0.2375	0.2375	0.2375	0.2375	0.9500	0.2375	0.2375	0.2375	0.2375
1.0250	0.2562	0.2563	0.2562	0.2563	0.7849	0.2562	0.2563	0.2724	–
1.0760	0.2438	0.2438	0.2438	0.3446	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–
16.9 %	13.6 %	18.8 %	17.6 %	17.8 %	17.9 %	14.3 %	20.1 %	17.4 %	19.8 %
	216,090	215,560	207,123	214,474		205,429	198,822	194,289	195,300
	1,522	1,530	1,529	1,539		1,881	1,885	1,892	1,902
	254	254	249	194		248	184	191	194
329,790	331,459	329,527	329,275	328,880	327,463	328,330	327,687	327,318	326,510
333,139	334,138	333,127	332,849	332,925	331,086	332,826	331,381	330,716	330,185
	337,236	330,001	330,141	329,860		329,297	328,469	327,606	326,943
	$28.26	$27.60	$27.01	$26.33		$25.76	$25.18	$24.41	$23.68
55.06	46.33	50.01	49.15	55.06	53.88	53.88	49.15	45.73	46.86
40.75	40.75	43.78	45.02	44.21	41.60	48.16	45.19	41.60	41.72
	20,189	20,502	20,622	20,653		20,522	20,676	20,612	20,649
	452	452	452	452		452	452	451	451

TABLE 2 – OVERVIEW OF RESULTS

Year ended October 31 (taxable equivalent basis)[1] (millions of Canadian dollars)	2016	2015	2014	2013[2]	2012[2]
Net interest income[3]	**3,187**	2,993	2,803	2,687	2,537
Non-interest income[3]	**2,888**	3,064	2,880	2,673	2,936
Total revenues	**6,075**	6,057	5,683	5,360	5,473
Non-interest expenses	**3,875**	3,665	3,423	3,206	3,207
Contribution	**2,200**	2,392	2,260	2,154	2,266
Provisions for credit losses	**484**	228	208	181	180
Income before income taxes	**1,716**	2,164	2,052	1,973	2,086
Income taxes	**460**	545	514	461	489
Net income	**1,256**	1,619	1,538	1,512	1,597
Non-controlling interests	**75**	70	69	63	61
Net income attributable to the Bank's shareholders	**1,181**	1,549	1,469	1,449	1,536
Average assets	**235,913**	222,929	206,680	193,509	181,344

(1) See the Financial Reporting Method section on page 10.
(2) Certain amounts have been adjusted to reflect accounting standard changes in 2014.
(3) The prior year figures have been adjusted to reflect a reclassification of certain amounts between the *Non-interest income – Credit fees* item and the *Net interest income* item in order to better reflect the nature of the income reported in the Personal and Commercial segment.

TABLE 3 – CHANGES IN NET INTEREST INCOME

Year ended October 31 (taxable equivalent basis)[1] (millions of Canadian dollars)	2016	2015	2014	2013[2]	2012[2]
Personal and Commercial					
Net interest income[3]	**1,919**	1,825	1,739	1,656	1,620
Average assets	**91,067**	86,886	81,516	76,696	70,524
Average interest-bearing assets	**85,987**	81,339	75,963	70,718	65,426
Net interest margin[4]	**2.23 %**	2.24 %	2.29 %	2.34 %	2.48 %
Wealth Management					
Net interest income	**372**	323	312	272	255
Average assets	**11,006**	10,388	10,400	9,080	8,817
Financial Markets					
Net interest income	**980**	996	824	784	584
Average assets	**91,928**	88,616	86,198	87,063	76,084
Other					
Net interest income	**(84)**	(151)	(72)	(25)	78
Average assets	**41,912**	37,039	28,566	20,670	25,919
Total					
Net interest income	**3,187**	2,993	2,803	2,687	2,537
Average assets	**235,913**	222,929	206,680	193,509	181,344

(1) See the Financial Reporting Method section on page 10.
(2) Certain amounts have been adjusted to reflect accounting standard changes in 2014.
(3) The prior year figures have been adjusted to reflect a reclassification of certain amounts between the *Non-interest income – Credit fees* item and the *Net interest income* item in order to better reflect the nature of the income reported in the Personal and Commercial segment.
(4) Net interest margin is calculated by dividing net interest income by average interest-bearing assets.

TABLE 4 – NON-INTEREST INCOME

Year ended October 31 (taxable equivalent basis)[1] (millions of Canadian dollars)	2016	2015	2014	2013	2012
Underwriting and advisory fees	**376**	387	388	301	318
Securities brokerage commissions	**235**	273	333	335	343
Mutual fund revenues	**364**	320	251	219	200
Trust service revenues	**453**	446	388	314	280
Credit fees[2]	**146**	147	129	124	127
Revenues from acceptances, letters of credit and guarantee	**236**	223	217	226	203
Card revenues	**119**	128	134	121	113
Deposit and payment service charges	**258**	238	234	235	229
Trading revenues (losses)	**154**	209	106	186	233
Gains (losses) on available-for-sale securities, net	**70**	82	103	82	123
Insurance revenues, net	**114**	107	108	118	111
Foreign exchange revenues, other than trading	**81**	88	89	90	94
Share in the net income of associates and joint ventures	**15**	26	44	26	29
Other	**267**	390	356	296	533
	2,888	3,064	2,880	2,673	2,936
Domestic	**2,470**	2,772	2,576	2,392	2,636
International					
United States	**337**	284	303	227	223
Other	**81**	8	1	54	77
Non-interest income as a % of total revenues on a taxable equivalent basis[1]	**47.5 %**	50.6 %	50.7 %	50.0 %	53.8 %
Non-interest income as a % of total revenues on a taxable equivalent basis and excluding specified items[1]	**49.1 %**	49.6 %	50.0 %	48.5 %	50.1 %

(1) See the Financial Reporting Method section on page 10.
(2) The prior year figures have been adjusted to reflect a reclassification of certain amounts between the *Non-interest income – Credit fees* item and the *Net interest income* item in order to better reflect the nature of the income reported in the Personal and Commercial segment.

TABLE 5 – TRADING ACTIVITY REVENUES[1]

Year ended October 31 (taxable equivalent basis)[2] (millions of Canadian dollars)	2016	2015	2014	2013	2012
Financial markets					
Equities	**438**	450	332	288	246
Fixed-income securities	**263**	237	207	237	212
Commodities and foreign exchange	**116**	147	82	88	73
	817	834	621	613	531
Other segments	**80**	151	122	212	158
	897	985	743	825	689

(1) Includes net interest income and non-interest income.
(2) See the Financial Reporting Method section on page 10.

TABLE 6 – PROVISIONS FOR CREDIT LOSSES

Year ended October 31 (millions of Canadian dollars)	2016	2015	2014	2013	2012
Provisions for credit losses on impaired loans					
Personal	**152**	162	155	148	135
Commercial	**73**	63	50	44	39
Wealth Management	**5**	3	3	3	3
Financial Markets	**4**	–	–	(14)	3
Total	**234**	228	208	181	180
Sectoral allowance on non-impaired loans – Oil and gas[1]	**250**	–	–	–	–
Total provisions for credit losses	**484**	228	208	181	180
Average loans and acceptances	**121,013**	108,740	99,548	92,398	84,009
Provisions for credit losses on impaired loans as a % of average loans and acceptances	**0.19 %**	0.21 %	0.21 %	0.20 %	0.21 %
Provisions for credit losses on impaired and non-impaired loans as a % of average loans and acceptances	**0.40 %**	0.21 %	0.21 %	0.20 %	0.21 %
Allowances for credit losses					
Balance at beginning	**569**	604	578	577	608
Provisions for credit losses	**484**	228	208	181	180
Write-offs	**(201)**	(197)	(118)	(112)	(154)
Write-offs on credit cards	**(81)**	(81)	(79)	(78)	(78)
Recoveries and other[2]	**10**	15	15	10	21
Balance at end	**781**	569	604	578	577
Composition of allowances:					
Individual and collective allowances on impaired loans	**211**	203	238	212	208
Sectoral allowance on non-impaired loans – Oil and gas[1]	**204**	–	–	–	–
Collective allowance on non-impaired loans[3]	**366**	366	366	366	369

(1) The sectoral allowance on non-impaired loans was established collectively for the portfolio of loans to producers and service companies in the oil and gas sector.
(2) Includes foreign exchange and other movements.
(3) The collective allowance for credit risk on non-impaired loans was established taking into account the Bank's overall credit portfolio, except for loans covered by the sectoral allowance and the amounts created for loans and credit facilities secured by restructured notes of the MAV conduits of $3 million in 2012.

TABLE 7 – NON-INTEREST EXPENSES

Year ended October 31 (millions of Canadian dollars)	2016	2015	2014	2013[1]	2012[1]
Compensation and employee benefits[2]	**2,161**	2,160	2,049	1,899	1,987
Occupancy	**195**	185	183	194	162
Technology	**367**	352	335	319	303
Amortization – Premises and equipment	**38**	38	39	43	43
Amortization – Technology	**220**	182	178	139	111
Communications	**67**	69	68	68	70
Professional fees	**276**	233	227	221	195
Restructuring charge[3]	**131**	86	–	–	–
Advertising and external relations	**83**	77	80	71	64
Stationery	**25**	24	25	22	22
Travel and business development	**37**	36	34	30	34
Security and theft	**45**	15	43	26	30
Capital and payroll taxes	**71**	69	44	46	57
Other	**159**	139	118	128	129
Total	**3,875**	3,665	3,423	3,206	3,207
Domestic	**3,601**	3,457	3,223	3,006	2,987
International					
United States	**235**	192	186	183	167
Other	**39**	16	14	17	53
Non-interest expenses as a % of total revenues on a taxable equivalent basis[4]	**63.8 %**	60.5 %	60.2 %	59.8 %	58.6 %
Non-interest expenses as a % of total revenues on a taxable equivalent basis and excluding specified items[4]	**58.2 %**	58.6 %	58.6 %	60.2 %	60.1 %

(1) Certain amounts have been adjusted to reflect accounting standard changes in 2014.
(2) Compensation and employee benefits included severance pay amounts of $12 million in 2013 and $80 million in 2012.
(3) The 2016 restructuring charge includes $129 million in compensation and employee benefits and $2 million in occupancy expenses (2015: $51 million in compensation and employee benefits and $35 million in other charges such as occupancy expenses and professional fees).
(4) See the Financial Reporting Method section on page 10.

TABLE 8 – CHANGE IN AVERAGE VOLUMES

Year ended October 31 (taxable equivalent basis)[1] (millions of Canadian dollars)	2016		2015		2014		2013[2]		2012[2]	
	Average volume $	**Rate %**	Average volume $	Rate %	Average volume $	Rate %	Average volume $	Rate %	Average volume $	Rate %
Assets										
Deposits with financial institutions	**14,079**	**0.46**	11,771	0.26	10,313	0.28	7,051	0.27	7,025	0.24
Securities	**60,784**	**1.98**	57,494	2.25	57,559	2.42	58,094	2.33	59,520	2.09
Securities purchased under reverse repurchase agreements and securities borrowed	**19,038**	**0.75**	25,610	0.79	24,789	0.68	21,271	0.79	15,929	0.69
Residential mortgage loans	**46,213**	**2.69**	41,719	2.85	38,517	3.02	35,590	3.13	31,846	3.33
Personal loans and credit card receivables	**32,480**	**3.84**	30,817	3.94	28,714	4.18	26,917	4.21	25,236	4.32
Business and government loans	**34,510**	**3.20**	27,096	3.20	23,498	3.42	21,126	3.60	19,395	3.71
Impaired loans, net of total allowances	**(177)**	**(0.97)**	(88)	(1.78)	(119)	(1.89)	(161)	(0.78)	(186)	(0.95)
Interest-bearing assets	**206,927**	**2.42**	194,419	2.47	183,271	2.60	169,888	2.68	158,765	2.67
Other assets	**28,986**		28,510		23,409		23,621		22,579	
Total assets	**235,913**	**2.12**	222,929	2.15	206,680	2.31	193,509	2.35	181,344	2.34
Liabilities and equity										
Personal deposits	**44,510**	**1.13**	42,480	1.20	43,000	1.31	40,156	1.45	37,835	1.54
Deposit-taking institutions	**12,468**	**0.39**	10,925	0.24	8,685	0.24	7,237	0.32	7,801	0.24
Other deposits	**83,906**	**1.12**	74,611	1.14	63,919	1.22	54,636	1.12	50,753	0.96
	140,884	**1.06**	128,016	1.08	115,604	1.18	102,029	1.19	96,389	1.13
Subordinated debt	**1,047**	**3.16**	1,571	3.80	1,906	3.96	2,381	4.30	1,927	4.54
Obligations other than deposits	**38,804**	**0.31**	40,374	0.41	44,230	0.91	45,156	1.07	43,431	1.23
Interest-bearing liabilities	**180,735**	**1.01**	169,961	1.06	161,740	1.21	149,566	1.25	141,747	1.21
Other liabilities	**43,529**		42,244		35,288		35,180		31,863	
Equity	**11,649**		10,724		9,652		8,763		7,734	
Liabilities and equity	**235,913**	**0.77**	222,929	0.81	206,680	0.95	193,509	0.96	181,344	0.94
Net interest margin		**1.35**		1.34		1.36		1.39		1.40

(1) See the Financial Reporting Method section on page 10.
(2) Certain amounts have been adjusted to reflect accounting standard changes in 2014.

TABLE 9 – DISTRIBUTION OF GROSS LOANS AND ACCEPTANCES BY BORROWER CATEGORY UNDER BASEL ASSET CLASSES

As at October 31 (millions of Canadian dollars)	2016		2015		2014		2013		2012	
	$	%	$	%	$	%	$	%	$	%
Residential mortgage[1]	**58,265**	**45.9**	54,004	46.6	50,011	46.8	46,836	47.8	43,225	47.2
Qualifying revolving retail	**4,178**	**3.3**	4,093	3.6	4,033	3.8	3,962	4.1	3,918	4.3
Other retail	**10,316**	**8.1**	9,512	8.2	9,027	8.5	8,801	9.0	11,605	12.7
Agriculture	**4,599**	**3.6**	4,433	3.8	3,857	3.6	3,553	3.6	2,364	2.6
Financial institutions	**3,872**	**3.0**	2,679	2.3	1,482	1.4	1,693	1.7	1,459	1.6
Manufacturing	**3,597**	**2.8**	3,765	3.3	3,689	3.5	3,286	3.4	2,780	3.0
Construction and real estate	**10,729**	**8.5**	10,439	9.0	9,088	8.5	7,562	7.7	5,258	5.7
Transportation	**3,013**	**2.4**	1,956	1.7	1,223	1.1	1,202	1.2	1,145	1.3
Telecommunications, media and technology	**1,578**	**1.2**	1,254	1.1	1,540	1.4	1,471	1.5	1,367	1.5
Oil and gas	**2,102**	**1.7**	3,220	2.8	3,621	3.4	3,552	3.6	3,275	3.6
Mining	**582**	**0.5**	392	0.3	247	0.2	211	0.2	324	0.3
Wholesale and retail	**4,932**	**3.9**	4,873	4.2	5,281	5.0	4,587	4.7	4,481	4.9
Services	**11,659**	**9.2**	9,861	8.5	9,308	8.7	8,512	8.7	6,401	7.0
Other	**7,537**	**5.9**	5,326	4.6	4,366	4.1	2,688	2.8	3,897	4.3
	126,959	**100.0**	115,807	100.0	106,773	100.0	97,916	100.0	91,499	100.0

(1) Includes residential mortgage loans on one-to-four-unit dwellings (as defined by Basel) as well as home equity lines of credit.

TABLE 10 – IMPAIRED LOANS

As at October 31 (millions of Canadian dollars)	**2016**	2015	2014	2013	2012
Net impaired loans					
Personal[1]	**85**	92	88	70	56
Commercial	**190**	157	158	111	81
Wealth Management	**5**	5	2	2	2
Financial Markets	**–**	–	–	–	40
Other	**1**	–	–	–	–
Total net impaired loans	**281**	254	248	183	179
Gross impaired loans	**492**	457	486	395	387
Individual and collective allowances on impaired loans	**211**	203	238	212	208
Net impaired loans	**281**	254	248	183	179
Provisioning rate	**42.9 %**	44.4 %	49.0 %	53.7 %	53.7 %
As a % of average loans and acceptances	**0.2 %**	0.2 %	0.2 %	0.2 %	0.2 %
As a % of common shareholders' equity	**2.9 %**	2.7 %	2.9 %	2.4 %	2.8 %
As a % of tangible capital adjusted for allowances	**6.3 %**	5.9 %	7.1 %	6.5 %	7.5 %

(1) Includes $40 million in net consumer loans in 2016 (2015: $42 million; 2014: $46 million; 2013: $37 million; 2012: $30 million).

TABLE 11 – DEPOSITS

As at October 31 (millions of Canadian dollars)	2016		2015		2014		2013[(1)]		2012[(1)]	
	$	**%**	$	%	$	%	$	%	$	%
Personal	**49,802**	**35.6**	45,981	35.7	44,963	37.6	42,652	41.8	40,814	43.7
Business and government	**49,009**	**35.0**	37,779	29.3	40,931	34.1	31,909	31.2	26,222	28.1
Deposit-taking institutions	**5,946**	**4.2**	6,638	5.2	1,684	1.4	1,072	1.0	2,547	2.7
Unsecured senior debt	**28,482**	**20.4**	30,522	23.7	27,236	22.7	23,336	22.9	20,876	22.3
Covered bonds	**6,668**	**4.8**	7,910	6.1	5,069	4.2	3,142	3.1	3,015	3.2
Total	**139,907**	**100.0**	128,830	100.0	119,883	100.0	102,111	100.0	93,474	100.0
Domestic	**129,710**	**92.7**	114,687	89.0	105,621	88.1	94,647	92.6	82,818	88.6
International										
United States	**4,442**	**3.2**	9,655	7.5	12,152	10.1	6,893	6.8	9,545	10.2
Other	**5,755**	**4.1**	4,488	3.5	2,110	1.8	571	0.6	1,111	1.2
Total	**139,907**	**100.0**	128,830	100.0	119,883	100.0	102,111	100.0	93,474	100.0
Personal deposits as a % of total assets		**21.4**		21.3		21.9		22.7		22.9

(1) Certain amounts have been adjusted to reflect accounting standard changes in 2014.

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MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL REPORTING

The consolidated financial statements of National Bank of Canada (the Bank) have been prepared in accordance with section 308(4) of the *Bank Act* (Canada), which states that, except as otherwise specified by the Office of the Superintendent of Financial Institutions (Canada) (OSFI), the financial statements are to be prepared in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB). None of the OSFI accounting requirements are exceptions to IFRS.

Management maintains the accounting and internal control systems needed to discharge its responsibility, which is to provide reasonable assurance that the financial accounts are accurate and complete and that the Bank's assets are adequately safeguarded. Controls that are currently in place include quality standards on staff hiring and training; the implementation of organizational structures with clear divisions of responsibility and accountability for performance; the *Code of Professional Conduct*; and the communication of operating policies and procedures.

As Chief Executive Officer and as Chief Financial Officer, we have overseen the evaluation of the design and operation of the Bank's internal controls over financial reporting in accordance with *Regulation 52-109 Respecting Certification of Disclosures in Issuers' Annual and Interim Filings* released by the Canadian Securities Administrators. Based on the evaluation work performed, we have concluded that the internal controls over financial reporting were effective as at October 31, 2016 and that they provide reasonable assurance that the financial information is reliable and that the Bank's consolidated financial statements have been prepared in accordance with IFRS.

The Board of Directors (the Board) is responsible for reviewing and approving the financial information contained in the Annual Report. Acting through the Audit Committee, the Board also oversees the presentation of the consolidated financial statements and ensures that accounting and control systems are maintained. Composed of directors who are neither officers nor employees of the Bank, the Audit Committee is responsible, through Internal Audit, for performing an independent and objective review of the Bank's internal control effectiveness, i.e., governance processes, risk management processes and control measures. Furthermore, the Audit Committee reviews the consolidated financial statements and recommends their approval to the Board.

The control systems are supported by the presence of the Compliance Service, which exercises independent oversight in order to assist managers in effectively managing regulatory compliance risk and to obtain reasonable assurance that the Bank is compliant with regulatory requirements.

The Senior Vice-President of Internal Audit has direct access to the Chair of the Audit Committee and to the President and Chief Executive Officer. In addition, the Senior Vice-President and Chief Compliance Officer has a direct functional link to the Chair of the Risk Management Committee and direct access to the President and Chief Executive Officer.

In accordance with the *Bank Act* (Canada), OSFI is mandated to protect the rights and interests of the depositors. Accordingly, OSFI examines and enquires into the business and affairs of the Bank, as deemed necessary, to ensure that the provisions of the *Bank Act* (Canada) are being satisfied and that the Bank is in sound financial condition.

The independent auditor, Deloitte LLP, whose report follows, was appointed by the shareholders on the recommendation of the Board. The auditor has full and unrestricted access to the Audit Committee to discuss audit and financial reporting matters.

Louis Vachon
President and Chief Executive Officer

Ghislain Parent
Chief Financial Officer and Executive Vice-President
Finance and Treasury

Montreal, Canada, December 1, 2016

INDEPENDENT AUDITOR'S REPORT

To the Shareholders of National Bank of Canada

We have audited the accompanying consolidated financial statements of National Bank of Canada (the Bank), which comprise the consolidated balance sheets as at October 31, 2016 and 2015, the consolidated statements of income, the consolidated statements of comprehensive income, the consolidated statements of changes in equity and the consolidated statements of cash flows for the years ended October 31, 2016 and 2015, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Consolidated Financial Statements
Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

The Auditor's Responsibility
Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion.

Opinion
In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Bank as at October 31, 2016 and 2015, and its financial performance and its cash flows for the years ended October 31, 2016 and 2015 in accordance with the International Financial Reporting Standards issued by the International Accounting Standards Board.

Deloitte LLP[1]

Montreal, Canada, December 1, 2016

[1] CPA auditor, CA, public accountancy permit No. A121501

CONSOLIDATED BALANCE SHEETS

As at October 31		2016	2015
Assets			
Cash and deposits with financial institutions		8,183	7,567
Securities	Notes 4 and 6		
At fair value through profit or loss		45,964	41,997
Available-for-sale		14,608	14,043
Held-to-maturity		3,969	–
		64,541	56,040
Securities purchased under reverse repurchase agreements and securities borrowed		13,948	17,702
Loans	Note 7		
Residential mortgage		48,868	43,520
Personal and credit card		33,964	31,933
Business and government		37,686	30,954
		120,518	106,407
Customers' liability under acceptances		6,441	9,400
Allowances for credit losses		(781)	(569)
		126,178	115,238
Other			
Derivative financial instruments	Note 17	10,416	10,842
Due from clients, dealers and brokers		843	415
Purchased receivables		1,858	1,438
Investments in associates and joint ventures	Note 9	645	831
Premises and equipment	Note 10	1,338	1,817
Goodwill	Note 11	1,412	1,277
Intangible assets	Note 11	1,140	1,059
Other assets	Note 12	1,704	1,864
		19,356	19,543
		232,206	216,090
Liabilities and equity			
Deposits	Notes 4 and 13		
Personal		49,802	45,981
Business and government		83,156	74,441
Deposit-taking institutions		6,949	8,408
		139,907	128,830
Other			
Acceptances		6,441	9,400
Obligations related to securities sold short		14,207	17,333
Obligations related to securities sold under repurchase agreements and securities loaned		22,636	13,779
Derivative financial instruments	Note 17	7,725	7,756
Due to clients, dealers and brokers		2,699	1,871
Liabilities related to transferred receivables	Notes 4 and 8	20,131	19,770
Other liabilities	Note 14	5,346	4,474
		79,185	74,383
Subordinated debt	Note 16	1,012	1,522
Equity			
Equity attributable to the Bank's shareholders	Notes 19 and 23		
Preferred shares		1,650	1,023
Common shares		2,645	2,614
Contributed surplus		73	67
Retained earnings		6,706	6,705
Accumulated other comprehensive income		218	145
		11,292	10,554
Non-controlling interests	Note 20	810	801
		12,102	11,355
		232,206	216,090

The accompanying notes are an integral part of these audited consolidated financial statements.

Louis Vachon
President and Chief Executive Officer

Pierre Boivin
Director

CONSOLIDATED STATEMENTS OF INCOME

Year ended October 31		2016	2015
Interest income			
Loans		3,836	3,570
Securities at fair value through profit or loss		620	695
Available-for-sale securities		330	286
Held-to-maturity securities		24	–
Deposits with financial institutions		65	30
		4,875	4,581
Interest expense			
Deposits		1,435	1,329
Liabilities related to transferred receivables		404	420
Subordinated debt		33	59
Other		47	91
		1,919	1,899
Net interest income		2,956	2,682
Non-interest income			
Underwriting and advisory fees		376	387
Securities brokerage commissions		235	273
Mutual fund revenues		364	320
Trust service revenues		453	446
Credit fees		382	370
Card revenues		119	128
Deposit and payment service charges		258	238
Trading revenues (losses)	Note 22	150	209
Gains (losses) on available-for-sale securities, net		70	82
Insurance revenues, net		114	107
Foreign exchange revenues, other than trading		81	88
Share in the net income of associates and joint ventures	Note 9	15	26
Other	Note 9	267	390
		2,884	3,064
Total revenues		5,840	5,746
Provisions for credit losses	Note 7	484	228
		5,356	5,518
Non-interest expenses			
Compensation and employee benefits		2,161	2,160
Occupancy		233	223
Technology		587	534
Communications		67	69
Professional fees		276	233
Restructuring charge	Note 15	131	86
Other		420	360
		3,875	3,665
Income before income taxes		1,481	1,853
Income taxes	Note 25	225	234
Net income		1,256	1,619
Net income attributable to			
Preferred shareholders		64	45
Common shareholders		1,117	1,504
Bank shareholders		1,181	1,549
Non-controlling interests		75	70
		1,256	1,619
Earnings per share *(dollars)*	Note 26		
Basic		3.31	4.56
Diluted		3.29	4.51
Dividends per common share *(dollars)*	Note 19	2.18	2.04

The accompanying notes are an integral part of these audited consolidated financial statements.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

Year ended October 31	2016	2015
Net income	**1,256**	1,619
Other comprehensive income, net of income taxes		
Items that may be subsequently reclassified to net income		
Net foreign currency translation adjustments		
Net unrealized foreign currency translation gains (losses) on investments in foreign operations	62	114
Net foreign currency translation (gains) losses on investments in foreign operations reclassified to net income	(12)	–
Impact of hedging net foreign currency translation gains (losses)	(33)	(107)
Impact of hedging net foreign currency translation (gains) losses reclassified to net income	5	–
	22	7
Net change in available-for-sale securities		
Net unrealized gains (losses) on available-for-sale securities	113	(75)
Net (gains) losses on available-for-sale securities reclassified to net income	(74)	(81)
	39	(156)
Net change in cash flow hedges		
Net gains (losses) on derivative financial instruments designated as cash flow hedges	34	14
Net (gains) losses on designated derivative financial instruments reclassified to net income	(18)	(11)
	16	3
Share in the other comprehensive income of associates and joint ventures	1	4
Items that will not be subsequently reclassified to net income		
Remeasurements of pension plans and other post-employment benefit plans	(257)	61
Net fair value change attributable to credit risk on financial liabilities designated at fair value through profit or loss	(66)	–
	(323)	61
Total other comprehensive income (loss), net of income taxes	(245)	(81)
Comprehensive income	1,011	1,538
Comprehensive income attributable to		
Bank shareholders	931	1,466
Non-controlling interests	80	72
	1,011	1,538

INCOME TAXES – OTHER COMPREHENSIVE INCOME

The following table presents the income tax expense or recovery for each component of other comprehensive income.

Year ended October 31	2016	2015
Net foreign currency translation adjustments		
Net unrealized foreign currency translation gains (losses) on investments in foreign operations	(1)	5
Net foreign currency translation (gains) losses on investments in foreign operations reclassified to net income	(2)	–
Impact of hedging net foreign currency translation gains (losses)	(9)	(18)
Impact of hedging net foreign currency translation (gains) losses reclassified to net income	2	–
	(10)	(13)
Net change in available-for-sale securities		
Net unrealized gains (losses) on available-for-sale securities	42	(28)
Net (gains) losses on available-for-sale securities reclassified to net income	(27)	(31)
	15	(59)
Net change in cash flow hedges		
Net gains (losses) on derivative financial instruments designated as cash flow hedges	13	4
Net (gains) losses on designated derivative financial instruments reclassified to net income	(7)	(4)
	6	–
Remeasurements of pension plans and other post-employment benefit plans	(94)	23
Net fair value change attributable to credit risk on financial liabilities designated at fair value through profit or loss	(24)	–
	(107)	(49)

The accompanying notes are an integral part of these audited consolidated financial statements.

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

Year ended October 31		2016	2015
Preferred shares at beginning	Note 19	1,023	1,223
Issuance of Series 34 and 36 preferred shares		800	–
Redemption of Series 16 and 20 preferred shares for cancellation		(173)	(200)
Preferred shares at end		1,650	1,023
Common shares at beginning	Note 19	2,614	2,293
Issuances of common shares			
Stock Option Plan		43	39
Public offering		–	300
Impact of shares purchased or sold for trading		(12)	(18)
Common shares at end		2,645	2,614
Contributed surplus at beginning		67	52
Stock option expense	Note 23	12	20
Stock options exercised		(6)	(5)
Contributed surplus at end		73	67
Retained earnings at beginning		6,705	5,850
Net income attributable to the Bank's shareholders		1,181	1,549
Dividends	Note 19		
Preferred shares		(61)	(45)
Common shares		(736)	(672)
Premium paid on preferred shares redeemed for cancellation	Note 19	(3)	–
Share issuance expenses		(11)	(9)
Remeasurements of pension plans and other post-employment benefit plans		(257)	61
Net fair value change attributable to the credit risk on financial liabilities designated at fair value through profit or loss		(66)	–
Impact of a financial liability resulting from put options written to non-controlling interests		(46)	(29)
Retained earnings at end		6,706	6,705
Accumulated other comprehensive income at beginning		145	289
Net foreign currency translation adjustments		22	7
Net change in unrealized gains (losses) on available-for-sale securities		39	(156)
Net change in gains (losses) on cash flow hedges		11	1
Share in the other comprehensive income of associates and joint ventures		1	4
Accumulated other comprehensive income at end		218	145
Equity attributable to the Bank's shareholders		11,292	10,554
Non-controlling interests at beginning		801	795
Net income attributable to non-controlling interests		75	70
Other comprehensive income attributable to non-controlling interests		5	2
Distributions to non-controlling interests		(71)	(66)
Non-controlling interests at end		810	801
Equity		12,102	11,355

ACCUMULATED OTHER COMPREHENSIVE INCOME

As at October 31	2016	2015
Accumulated other comprehensive income		
Net foreign currency translation adjustments	26	4
Net unrealized gains (losses) on available-for-sale securities	51	12
Net gains (losses) on instruments designated as cash flow hedges	135	124
Share in the other comprehensive income of associates and joint ventures	6	5
	218	145

The accompanying notes are an integral part of these audited consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

Year ended October 31		2016	2015
Cash flows from operating activities			
Net income		1,256	1,619
Adjustments for			
Provisions for credit losses		484	228
Amortization of premises and equipment and intangible assets		417	301
Impairment losses on intangible assets	Note 11	45	46
Write-off of an equity interest in an associate	Note 9	164	–
Gain on the revaluation of the previously held equity interest in Advanced Bank of Asia Limited	Note 33	(41)	–
Gain on the disposal of shares of Fiera Capital Corporation	Note 33	–	(34)
Deferred taxes		(136)	8
Translation adjustment on foreign currency denominated subordinated debt		–	1
Losses (gains) on sales of available-for-sale securities, net		(79)	(108)
Impairment losses on available-for-sale securities		9	26
Share in the net income of associates and joint ventures		(15)	(26)
Stock option expense		12	20
Change in operating assets and liabilities			
Securities at fair value through profit or loss		(3,967)	1,203
Securities purchased under reverse repurchase agreements and securities borrowed		3,754	6,823
Loans, net of securitization		(13,263)	(6,156)
Deposits		10,108	8,947
Obligations related to securities sold short		(3,126)	(834)
Obligations related to securities sold under repurchase agreements and securities loaned		8,857	(3,001)
Derivative financial instruments, net		395	(1,715)
Due from and to clients, dealers and brokers, net		400	321
Purchased receivables		(420)	(648)
Interest and dividends receivable and interest payable		6	(42)
Current tax assets and liabilities		245	(179)
Other items		333	(425)
		5,438	6,375
Cash flows from financing activities			
Issuance of preferred shares		800	–
Redemption of preferred shares for cancellation		(176)	(200)
Issuance of common shares, net of the impact of shares purchased for trading		25	316
Redemption of subordinated debt		(500)	(350)
Share issuance expenses		(11)	(9)
Dividends paid		(600)	(717)
Distributions to non-controlling interests		(71)	(66)
		(533)	(1,026)
Cash flows from investing activities			
Acquisition of Advanced Bank of Asia Limited	Note 33	(119)	–
Disposal of shares of Fiera Capital Corporation	Note 33	–	114
Acquisition of an equity interest in NSIA Participations	Note 9	–	(116)
Purchases of available-for-sale securities		(6,284)	(9,140)
Maturities of available-for-sale securities		786	704
Sales of available-for-sale securities		5,355	4,605
Purchases of held-to-maturity securities		(3,962)	–
Net change in tangible assets leased under operating leases		372	(1,442)
Net change in premises and equipment		(140)	(130)
Net change in intangible assets		(268)	(215)
		(4,260)	(5,620)
Impact of currency rate movements on cash and cash equivalents		(29)	(248)
Increase (decrease) in cash and cash equivalents		616	(519)
Cash and cash equivalents at beginning		7,567	8,086
Cash and cash equivalents at end[1]		8,183	7,567
Supplementary information about cash flows from operating activities			
Interest paid		1,898	1,936
Interest and dividends received		4,860	4,537
Income taxes paid		235	182

The accompanying notes are an integral part of these audited consolidated financial statements.

(1) This item is the equivalent of Consolidated Balance Sheet item *Cash and deposits with financial institutions*. It includes an amount of $1.9 billion as at October 31, 2016 ($1.3 billion as at October 31, 2015) for which there are restrictions. In addition, $3 million was held in escrow as at October 31, 2016 ($3 million as at October 31, 2015).

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NOTE 1 – BASIS OF PRESENTATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

National Bank of Canada (the Bank) is a financial institution incorporated and domiciled in Canada and whose shares are listed on the Toronto Stock Exchange. Its head office is located at 600 De La Gauchetière Street West in Montreal, Quebec, Canada. The Bank is a chartered bank under Schedule 1 of the *Bank Act* (Canada) and is regulated by the Office of the Superintendent of Financial Institutions Canada (OSFI).

The Bank provides integrated financial services to consumers, small- and medium-sized enterprises, and large corporations and operates three business segments, namely, the Personal and Commercial segment, the Wealth Management segment, and the Financial Markets segment. Its full line of services includes banking and investing solutions for individuals and businesses, securities brokerage, insurance and wealth management.

On December 1, 2016, the Board of Directors (the Board) authorized the publication of the Bank's audited annual consolidated financial statements (the consolidated financial statements) for the year ended October 31, 2016.

Basis of Presentation

The consolidated financial statements of the Bank have been prepared in accordance with section 308(4) of the *Bank Act* (Canada), which states that, except as otherwise specified by OSFI, the financial statements are to be prepared in accordance with the International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB). None of the OSFI accounting requirements are exceptions to IFRS.

On November 1, 2015, the Bank reclassified certain amounts in the Consolidated Statement of Income to better reflect the nature of the income reported in the Personal and Commercial segment. As a result, for the year ended October 31, 2015, an amount of $39 million presented in the *Non-interest income – Credit fees* item was reclassified to *Net interest income*. This reclassification had no impact on *Net income.*

Unless otherwise indicated, all amounts are expressed in Canadian dollars, which is the Bank's functional and presentation currency.

Summary of Significant Accounting Policies

Judgments, Estimates and Assumptions

In preparing consolidated financial statements in accordance with IFRS, management must exercise judgment and make estimates and assumptions that affect the reporting date carrying amounts of assets and liabilities, net income and related information. Furthermore, certain accounting policies require complex judgments and estimates because they apply to matters that are inherently uncertain, in particular accounting policies applicable to allowances for credit losses, the fair value determination of financial instruments, the impairment of available-for-sale securities, the impairment of non-financial assets, pension plans and other post-employment benefits, income taxes, provisions, and the consolidation of structured entities. Descriptions of these judgments and estimates are provided in each of the related notes to the consolidated financial statements. Actual results could differ from these estimates, in which case the impact is recognized in the consolidated financial statements of future fiscal periods. The accounting policies described in this note provide greater detail about the use of estimates and assumptions and reliance on judgment.

NOTE 1 – BASIS OF PRESENTATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Basis of Consolidation

Subsidiaries

The consolidated financial statements include all of the assets, liabilities, operating results and cash flows of the Bank and its subsidiaries, after elimination of intercompany transactions and balances. The subsidiaries are entities, including structured entities, controlled by the Bank. A structured entity is an entity created to accomplish a narrow and well-defined objective and is designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, such as when voting rights relate solely to administrative tasks and the relevant activities are directed by means of contractual arrangements.

Management must exercise judgment in determining whether the Bank must consolidate an entity. The Bank controls an entity only if the following three conditions are met:

- it has decision-making authority regarding the entity's relevant activities;
- it has exposure or rights to variable returns from its involvement with the entity; and
- it has the ability to use its power to affect the amount of the returns.

When determining decision-making authority, many factors are taken into account, including the existence and effect of actual and potential voting rights held by the Bank that can be exercised as well as the holding of instruments that are convertible into voting shares. In addition, the Bank must determine whether, as an investor with decision-making rights, it acts as a principal or agent.

Based on these principles, an assessment of control is performed at the inception of a relationship between any entity and the Bank. When performing this assessment, the Bank considers all facts and circumstances, and it must reassess whether it still controls an investee if facts and circumstances indicate that there are changes to one or more of the three conditions of control.

The Bank consolidates the entities it controls from the date on which control is obtained and ceases to consolidate them from the date control ceases. The Bank uses the acquisition method to account for the acquisition of a subsidiary from a third party on the date control is obtained.

Non-Controlling Interests

Non-controlling interests in subsidiaries represent the equity interests of third parties in the Bank's subsidiaries and are presented in total *Equity,* separately from *Equity attributable to the Bank's shareholders.* The non-controlling interests' proportionate share in the net income and other comprehensive income of the Bank's subsidiaries are presented in total net income and total comprehensive income, respectively.

With respect to units issued to third parties by mutual funds and certain other funds that are consolidated, they are presented at fair value in *Other liabilities* on the Consolidated Balance Sheet.

Lastly, changes in ownership interests in subsidiaries that do not result in a loss of control are recognized as equity transactions. The difference between the adjustment in the carrying value of the non-controlling interest and the fair value of the consideration paid or received is recognized directly in *Equity attributable to the Bank's shareholders*.

Investments in Associates and Joint Ventures

The Bank exercises significant influence over an entity when it has the power to participate in the financial and operating policy decisions of the investee. The Bank has joint control over an entity when there's a contractually agreed sharing of control of an entity that exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

Investments in associates, i.e., entities over which the Bank exercises significant influence, and investments in joint ventures, i.e., entities over which the Bank has rights to the net assets and exercises joint control, are accounted for using the equity method. Under the equity method, the investment is initially recorded at cost and, following acquisition, the Bank's shares in the net income and in the other comprehensive income are recognized, respectively, in *Non-interest income* in the Consolidated Statement of Income and in *Other comprehensive income* in the Consolidated Statement of Comprehensive Income. The carrying value of the investment is adjusted by an equivalent amount on the Consolidated Balance Sheet and reduced by distributions received.

Foreign Currencies

The consolidated financial statements are presented in Canadian dollars, which is the Bank's functional and presentation currency. Each entity in the group determines its own functional currency, and the items reported in the financial statements of each entity are measured using that currency.

Monetary assets and liabilities denominated in foreign currencies are translated into the functional currency using the rates in effect on the date of the Consolidated Balance Sheet. Translation gains and losses are recognized in *Non-interest income* in the Consolidated Statement of Income. Revenues and expenses denominated in foreign currencies are translated at the average exchange rates for the period. Non-monetary assets and liabilities are translated into the functional currency at historical rates. Non-monetary items denominated in foreign currencies measured at fair value are translated using the exchange rates in effect on the date fair value is determined, and the translation gains or losses are recognized in the Consolidated Statement of Income. Translation gains or losses on non-monetary items classified as available for sale are recognized in *Other comprehensive income.* Upon disposal or due to impairment of a non-monetary item classified as available for sale, the deferred translation gains or losses are reclassified, in whole or in part, from *Accumulated other comprehensive income* to *Non-interest income* of the Consolidated Statement of Income.

In the consolidated financial statements, the assets and liabilities of all foreign operations are translated into the Bank's functional currency using the rates in effect on the Consolidated Balance Sheet date, whereas the revenues and expenses of such foreign operations are translated into the Bank's functional currency at the average exchange rates for the period. Any goodwill resulting from the acquisition of a foreign operation that does not have the same functional currency as the parent company, and any fair value adjustments to the carrying amounts of assets and liabilities resulting from the acquisition, are treated as assets and liabilities of the foreign operation and translated using the rates in effect on the Consolidated Balance Sheet date. Gains and losses on translating the financial statements of foreign operations, along with related hedge and tax effects, are presented in *Other comprehensive income.* Upon disposal of a foreign operation, the deferred cumulative amount recognized in *Accumulated other comprehensive income* relating to that particular operation is reclassified to *Non-interest income* of the Consolidated Statement of Income.

Classification and Measurement of Financial Instruments

In accordance with the accounting framework for financial instruments, all financial assets and liabilities must be classified based on their characteristics, management's intention, or choice of category in certain circumstances. When initially recognized, all financial assets are classified as at fair value through profit or loss, held to maturity, available for sale, or loans and receivables, while financial liabilities are classified as at fair value through profit or loss or as financial liabilities at amortized cost. Certain debt securities that are not quoted in an active market may be classified as loans and receivables, and impairment is determined using the same model as for loans. Loans and receivables that the Bank intends to sell immediately or in the near term must be classified as at fair value through profit or loss, whereas loans and receivables for which the Bank may not recover substantially all of its initial investment, for reasons other than credit deterioration, must be classified as available for sale.

When initially recognized, all financial assets and liabilities, including derivative financial instruments, are recorded at fair value on the Consolidated Balance Sheet. In subsequent periods, they are measured at fair value, except for items classified in the following categories, which are measured at amortized cost using the effective interest rate method: financial assets held to maturity, loans and receivables, and financial liabilities at amortized cost.

Under the fair value option, a financial asset or liability may be irrevocably designated at fair value through profit or loss when it is initially recognized. Financial assets thus designated are recognized at fair value, and any change in fair value is recorded in *Non-interest income* in the Consolidated Statement of Income. Financial liabilities thus designated are recognized at fair value, and any changes in fair value attributable to changes in the Bank's own credit risk are recognized in *Other comprehensive income* unless these changes offset the amounts recognized in *Net income.* Fair value changes not attributable to the Bank's own credit risk are recognized in *Non-interest income* in the Consolidated Statement of Income. The amounts recognized in *Other comprehensive income* will not be subsequently reclassified to *Net income*. Interest income and expenses arising from these financial instruments designated at fair value through profit or loss are recorded in the *Net interest income* item of the Consolidated Statement of Income. The Bank may use this option in the following cases.

- If, consistent with a documented risk management strategy, using this option allows the Bank to eliminate or significantly reduce the measurement or recognition mismatch of measuring financial assets or liabilities on a different basis, and if the fair values are reliable.
- If a group of financial assets and financial liabilities to which an instrument belongs is managed and its performance is evaluated on a fair value basis, in accordance with the Bank's documented risk management or investment strategy, and information is provided on that basis to senior management. Consequently, the Bank may use the fair value option if it has implemented a documented risk management strategy to manage a group of financial instruments together on the fair value basis, if it can demonstrate that significant financial risks are eliminated or significantly reduced, and if the fair values are reliable.
- For hybrid financial instruments with one or more embedded derivatives that would significantly modify the cash flows of the financial instruments and that would otherwise be bifurcated and accounted for separately.

NOTE 1 – BASIS OF PRESENTATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Reclassification of Financial Instruments

A financial asset, other than a derivative financial instrument or a financial asset that, upon initial recognition, was designated as measured at fair value through profit or loss, may be reclassified out of the fair value through profit or loss category in rare circumstances if the financial asset is no longer held for the purpose of selling it in the near term. The financial asset must be reclassified at its fair value on the date of reclassification, and this fair value becomes its new amortized cost, as applicable. No gain or loss previously recognized in the Consolidated Statement of Income may be reversed.

Establishing Fair Value

The fair value of a financial instrument is the price that would be received to sell a financial asset or paid to transfer a financial liability in an orderly transaction in the principal market at the measurement date under current market conditions (i.e., an exit price).

Unadjusted quoted prices in active markets, based on bid prices for financial assets and offered prices for financial liabilities, provide the best evidence of fair value. A financial instrument is considered quoted in an active market when prices in exchange, dealer, broker or principal-to-principal markets are accessible at the measurement date. An active market is one where transactions occur with sufficient frequency and volume to provide quoted prices on an ongoing basis.

When there is no quoted price in an active market, the Bank uses another valuation technique that maximizes the use of relevant observable inputs and minimizes the use of unobservable inputs. The chosen valuation technique incorporates all the factors that market participants would take into account in pricing a transaction. Judgment is required when applying a large number of acceptable valuation techniques and estimates to determine fair value. The estimated fair value reflects market conditions on the valuation date and, consequently, may not be indicative of future fair value.

The best evidence of the fair value of a financial instrument at initial recognition is the transaction price, i.e., the fair value of the consideration received or paid. If there is a difference between the fair value at initial recognition and the transaction price, and the fair value is determined using a valuation technique based on observable market inputs or, in the case of a derivative, if the risks are fully offset by other contracts entered into with third parties, this difference is recognized in the Consolidated Statement of Income. In other cases, the difference between the fair value at initial recognition and the transaction price is deferred on the Consolidated Balance Sheet. The amount of the deferred gain or loss is recognized over the term of the financial instrument. The unamortized balance is immediately recognized in net income when (i) observable market inputs can be obtained and support the fair value of the transaction, (ii) the risks associated with the initial contract are substantially offset by other contracts entered into with third parties, (iii) the gain or loss is realized through a cash receipt or payment, or (iv) the transaction matures or is cancelled before maturity.

In certain cases, measurement adjustments are recognized to address factors that market participants would use at the measurement date to determine fair value but that are not included in the measurement technique due to system limitations or uncertainty surrounding the measure. These factors include, but are not limited to, the unobservable nature of inputs used in the valuation model, assumptions about risk such as market risk, credit risk, or risk related to the valuation model, and future administration costs. The Bank may also consider market liquidity risk when determining the fair value of financial instruments when it believes these instruments could be disposed of for a consideration below the fair value otherwise determined due to a lack of market liquidity or an insufficient volume of transactions in a given market.

As permitted when certain criteria are met, the Bank has elected to determine fair value based on net exposure to credit risk or market risk for certain portfolios of financial instruments, mainly derivatives.

Cash and Deposits with Financial Institutions

Cash and deposits with financial institutions consist of cash and cash equivalents, amounts pledged as collateral as well as amounts placed in escrow. Cash comprises cash and bank notes. Cash equivalents consist of deposits with the Bank of Canada, deposits with financial institutions, including net receivables related to cheques and other items in the clearing process, as well as the net amount of cheques and other items in transit.

Securities at Fair Value Through Profit or Loss

Securities at fair value through profit or loss are generally purchased for sale in the near term or are part of portfolios of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit-taking. The Bank accounts for securities transactions at fair value through profit or loss on the settlement date on the Consolidated Balance Sheet. Changes in fair value between the trade date and the settlement date are included in *Non-interest income* in the Consolidated Statement of Income.

Securities at fair value through profit or loss are recognized at fair value, and transaction fees are recognized directly in the Consolidated Statement of Income. Interest income as well as realized and unrealized gains and losses on such securities are recorded in *Non-interest income* in the Consolidated Statement of Income. Dividend income is recorded in *Interest income* in the Consolidated Statement of Income.

Available-for-Sale Securities
Securities that are neither classified as at fair value through profit or loss nor as held to maturity nor in the loans and receivables category are classified as available-for-sale securities. The Bank accounts for available-for-sale securities transactions on the trade date, and the related transaction costs are capitalized.

Available-for-sale securities are recognized at fair value. Unrealized gains and losses are recognized, net of impairment losses and income taxes, provided they are not hedged by derivative financial instruments in a fair value hedging relationship, in *Other comprehensive income.* When the securities are sold, the realized gains or losses, determined on an average cost basis, are reclassified to *Non-interest income* in the Consolidated Statement of Income on the transaction date.

The amortization of premiums and discounts, calculated using the effective interest rate method, as well as dividend and interest income, are recognized in *Interest income* in the Consolidated Statement of Income.

Held-to-Maturity Securities
Held-to-maturity securities are financial assets with fixed or determinable payments and a fixed maturity that the Bank intends and is able to hold until maturity. The Bank accounts for held-to-maturity securities transactions on the trade date, and the related transaction costs are capitalized. These securities are initially recognized at fair value. In subsequent periods, they are recognized at amortized cost using the effective interest rate method, less any impairment loss measured using the same impairment model used for loans. Interest income and the amortization of premiums and discounts on these securities are recognized in *Net interest income* in the Consolidated Statement of Income.

Securities Purchased Under Reverse Repurchase Agreements, Obligations Related to Securities Sold Under Repurchase Agreements and Securities Borrowed and Loaned
The Bank recognizes these transactions at amortized cost using the effective interest rate method. Securities sold under repurchase agreements remain on the Consolidated Balance Sheet, whereas securities purchased under reverse repurchase agreements are not recognized. Reverse repurchase agreements and repurchase agreements are treated as collateralized lending and borrowing transactions.

The Bank also borrows and lends securities. Securities loaned remain on the Consolidated Balance Sheet while securities borrowed are not recognized. As part of these transactions, the Bank pledges or receives collateral in the form of cash or securities. Collateral pledged in the form of securities remains on the Consolidated Balance Sheet. Collateral received in the form of securities is not recognized on the Consolidated Balance Sheet. Collateral pledged or received in the form of cash is recognized in financial assets or liabilities on the Consolidated Balance Sheet.

When the collateral is pledged or received in the form of cash, the interest income and expense are recorded in *Net interest income* in the Consolidated Statement of Income.

Loans
Loans, including transaction costs directly attributable to the granting of the loans, other than loans classified or designated as measured at fair value through profit or loss, are presented on the Consolidated Balance Sheet at amortized cost using the effective interest rate method. Loans classified or designated as measured at fair value through profit or loss are recognized at fair value.

Impairment of Financial Assets
At the end of each reporting period, the Bank determines whether there is objective evidence of impairment of a financial asset or group of financial assets. There is objective evidence of impairment when one or more loss events occur after the initial recognition of the asset and prior to or on the balance sheet date and these events adversely affect the estimated future cash flows of the financial assets in question. Management must exercise judgment to determine whether certain events or circumstances constitute objective evidence of impairment and to estimate the timing of future cash flows.

Available-for-Sale Securities
Available-for-sale securities are reviewed for objective evidence of impairment at the end of each reporting period. The Bank considers all available objective evidence of impairment, including observable data about loss events such as: a significant financial difficulty of the issuer, a breach of contract such as a default, and situations involving bankruptcy or other financial reorganization. In addition to these loss events, objective evidence of impairment for an equity security also includes information about significant changes with an adverse effect that have taken place in the technological, market, economic, or legal environment in which the issuer operates, and indicates that the cost of the investment in the equity security may not be recovered. For equity securities, a significant or prolonged decline in fair value below cost is also considered objective evidence of impairment.

NOTE 1 – BASIS OF PRESENTATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

If there is objective evidence of impairment, any amount previously recognized in *Accumulated other comprehensive income* is reclassified to *Non-interest income* in the Consolidated Statement of Income. This amount is determined as the difference between the acquisition cost (net of any capital repayments and amortization) and the current fair value of the asset less any impairment loss on that investment previously recognized in the Consolidated Statement of Income.

Once an impairment loss has been recognized for an available-for-sale security, the subsequent accounting treatment depends on whether the instrument is a debt or equity security.

- For an available-for-sale debt security, a subsequent decline in fair value will be accounted for in *Non-interest income* in the Consolidated Statement of Income when there is further objective evidence of impairment as a result of further decreases in the estimated future cash flows of the debt security. Impairment losses recognized in income relating to an available-for-sale debt security must be reversed in the Consolidated Statement of Income when, in a subsequent period, the fair value of the security increases and the increase can be objectively associated with an event occurring after the loss was recognized.
- For an available-for-sale equity security, subsequent decreases in fair value are accounted for in the Consolidated Statement of Income. Impairment losses recognized are not reversed through the Consolidated Statement of Income. All subsequent increases in fair value will be accounted for in *Other comprehensive income* in the Consolidated Statement of Comprehensive Income.

Impaired Loans

A loan, except credit card receivables, is considered impaired if there is objective evidence of impairment and, in management's best estimate, the timely collection of principal and interest is no longer reasonably assured, or when a payment is contractually 90 days past due, unless the loan is fully secured and collection efforts are reasonably expected to result in repayment of the debt within 180 days. For credit card receivables, they are written off when payment is 180 days in arrears. Loans that are insured or fully guaranteed by a Canadian government (federal or provincial) or by a Canadian government agency are considered impaired when more than 365 days in arrears.

When a counterparty to a loan fails to make the payment when contractually due, that loan is considered past due but not impaired.

When a loan is deemed impaired, interest recognition ceases and the carrying amount of the loan is reduced to its estimated realizable amount by writing off all or part of the loan or by taking an allowance for credit losses. The impairment loss is calculated by comparing the present value of expected future cash flows, discounted at the initial effective interest rate of the loan, to its current carrying amount including accrued interest. The losses are recorded in *Provisions for credit losses* in the Consolidated Statement of Income.

A loan is returned to performing status when the timely collection of future interest and principal is reasonably assured and when all principal and interest payments in arrears have been collected.

A loan and its related allowance for credit losses are normally written off in whole or in part when the Bank considers the probability of recovery to be non-existent and when all guarantees and other remedies available to the Bank have been exhausted or if the borrower is bankrupt or winding up and balances owing are not likely to be recovered.

Situations where a retail, commercial or government borrower begin showing clear signs of potential insolvency are managed on a case-by-case basis and require the use of judgment. In these situations, the Bank may grant a concession to the borrower regarding the original terms and conditions of the loan, for example by reducing the rate, granting a forgiveness of principal or extending the term despite the Bank's credit policies. Once the terms of the loan have been renegotiated and agreed upon with the borrower, the loan is considered a restructured loan. As of the restructuring date, the current carrying amount of the loan, including accrued interest, is reduced to the present value of expected cash flows under the modified terms, discounted at the original effective interest rate of the loan. The reduction in the carrying value is recorded in *Provisions for credit losses* in the Consolidated Statement of Income.

Allowances for Credit Losses

Allowances for credit losses are management's best estimate of losses in its credit portfolio as at the balance sheet date. They relate primarily to loans but may also cover the credit risk associated with deposits with financial institutions, loan substitute securities, credit instruments such as acceptances, and off-balance-sheet items such as commitments to extend credit, letters of guarantee and letters of credit.

Changes in allowances for credit losses attributable to the passage of time are recorded in *Interest income* in the Consolidated Statement of Income, whereas changes attributable to a revision of expected payments are recorded in *Provisions for credit losses* in the Consolidated Statement of Income.

If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the allowances were recognized, the previously recognized impairment loss is reversed directly in *Provisions for credit losses* in the Consolidated Statement of Income.

The allowances for credit losses on impaired loans are calculated on a loan-by-loan basis and assessed either individually or collectively based on the portfolio's historical net loss experience. The allowance for credit losses on non-impaired loans is assessed collectively.

Allowances on Impaired Loans
Impairment allowances are recorded for all individually identified impaired loans to reduce their carrying amount to the estimated realizable amount. For each impaired loan, the Bank records an individual allowance, when the credit loss assessment is based on a detailed analysis of the borrower's file, or a collective allowance, when the credit loss assessment is based on the portfolio's historical net loss experience.

For all individually significant impaired loans, namely business and government loans, and for certain impaired loans that are not individually significant, namely residential mortgages, the Bank records an individual allowance since the credit loss assessment is based on a detailed analysis of the borrower's file. For all other impaired loans that are not individually significant but have been individually identified as impaired, the Bank records for each such loan a collective allowance based on historical net loss experience.

Allowances on Non-Impaired Loans
When the credit risk of a portfolio of loans that have similar credit risk characteristics increases significantly, such as a group of loans of a specific industry, but the loans have yet to be individually identified as impaired, a sectoral allowance is established collectively for the entire loan portfolio. The sectoral allowance is determined using an approach similar to the collective allowance measurement on non-impaired loans, i.e., an approach based on expected default and loss factors determined by statistical analysis of historical loss data by loan type, and on an analysis of the industry-specific market factors such as market liquidity, credit spreads, and risk factor levels.

All loans that have not been individually identified as impaired, and that are not covered by a sectoral allowance, are grouped according to their credit risk characteristics for the purpose of calculating a collective allowance on non-impaired loans. The collective allowance on non-impaired loans includes two components for credit risk: the allocated collective allowance and the unallocated collective allowance.

The allocated collective allowance for the business and government loan portfolio is based on expected default and loss factors determined by statistical analysis of historical loss data, delineated by loan type, to which is added an amount that takes into account the discovery period and migration risk. For personal loans, the allocated collective allowance is calculated based on specific parameters by product, and no discovery period is calculated. Losses are determined by the application of loss ratios established through statistical analysis of historical loss data.

The unallocated collective allowance reflects management's assessment of probable portfolio losses that have not been captured by the allocated collective allowance. This assessment takes into account general economic and business conditions, recent credit loss data, and credit quality and concentration trends when the collective allowance is determined at the Consolidated Balance Sheet date. This allowance also reflects model and estimation risks. The unallocated collective allowance does not represent future losses or serve as a substitute for the allocated collective allowance.

The sectoral allowance and collective allowance on non-impaired loans are collectively established and reflect the impairment losses that the Bank has incurred as a result of events that have occurred but where the individual loss has not been identified.

Purchased Receivables
On the acquisition date, purchased receivables are measured at fair value, which incorporates incurred and expected credit losses estimated on the acquisition date and the interest rate differential between the receivable's contractual interest rate and the current market rates for the remaining term. As a result, no allowances for credit losses are recorded on the Consolidated Balance Sheet on the acquisition date. Discounts related to incurred credit losses are not amortized.

Purchased performing receivables are subsequently accounted for at amortized cost based on their contractual cash flows, and any discount or premium is considered an adjustment to the loan yield and is amortized over the expected life of the receivable using the effective interest rate method and recorded in the Consolidated Statement of Income.

When receivables are acquired with objective evidence of incurred credit loss, where the timely collection of contractual principal and interest is not reasonably assured, these receivables are subsequently accounted for at amortized cost based on the present value of expected future cash flows discounted at the initial effective interest rate. At the end of each reporting period, the Bank re-evaluates the expected future cash flows and adjusts the carrying amount of the receivables to reflect the revised expected future cash flows discounted at the initial effective interest rate. This adjustment is immediately recorded in the Consolidated Statement of Income.

NOTE 1 – BASIS OF PRESENTATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Derecognition of Financial Assets and Securitization

A financial asset is considered for derecognition when the Bank has transferred contractual rights to receive the cash flows or assumed an obligation to transfer these cash flows to a third party. The Bank derecognizes a financial asset when it considers that substantially all of the risks and rewards of the asset have been transferred or when the contractual rights to the cash flows of the financial asset expire. When the Bank considers that it has retained substantially all of the risks and rewards of the transferred asset, it continues to recognize the financial asset and, if applicable, recognizes a financial liability on the Consolidated Balance Sheet. If, due to a derivative financial instrument, the transfer of a financial asset does not result in derecognition, the derivative financial instrument is not recognized on the Consolidated Balance Sheet.

When the Bank has neither transferred nor retained substantially all the risks and rewards related to a financial asset, it derecognizes the financial asset it no longer controls. Any rights and obligations retained following the asset transfer are recognized separately as an asset or liability. If the Bank retains control of the financial asset, it continues to recognize the asset to the extent of its continuing involvement in that asset, i.e., to the extent to which it is exposed to changes in the value of the transferred asset.

In order to diversify its funding sources, the Bank participates in two Canada Mortgage and Housing Corporation (CMHC) securitization programs: the Mortgage-Backed Securities Program under the *National Housing Act* (Canada) (NHA) and Canada Mortgage Bond (CMB) program. Under the first program, the Bank issues NHA securities backed by insured residential mortgages and, under the second, the Bank sells NHA securities to Canada Housing Trust (CHT). As part of these transactions, the Bank retains substantially all of the risks and rewards related to ownership of the mortgage loans sold. Therefore, the insured mortgage loans securitized under the CMB program continue to be recognized in the *Loans* item on the Bank's Consolidated Balance Sheet and the liabilities for the considerations received from the transfer are recognized in *Liabilities related to transferred receivables* on the Consolidated Balance Sheet. Moreover, insured mortgage loans securitized and retained by the Bank continue to be recognized in *Loans* on the Consolidated Balance Sheet.

Derecognition of Financial Liabilities

A financial liability is derecognized when the obligation is discharged, cancelled or expires. The difference between the carrying value of the financial liability transferred and the consideration paid is recognized in the Consolidated Statement of Income.

Acceptances and Customers' Liability Under Acceptances

The potential liability of the Bank under acceptances is recorded as a customer commitment liability on the Consolidated Balance Sheet. The Bank's potential recourse vis à vis clients is recorded as an equivalent offsetting asset. Fees are recorded in *Non-interest income* in the Consolidated Statement of Income.

Obligations Related to Securities Sold Short

This financial liability represents the Bank's obligation to deliver the securities it sold but did not own at the time of sale. Obligations related to securities sold short are recorded at fair value and presented as liabilities on the Consolidated Balance Sheet. Realized and unrealized gains and losses are recognized in *Non-interest income* in the Consolidated Statement of Income.

Derivative Financial Instruments

In the normal course of business, the Bank uses derivative financial instruments to meet the needs of its clients, to generate trading activity revenues, and to manage its exposure to interest rate risk, foreign exchange risk, credit risk and other market risks.

All derivative financial instruments are recorded at fair value on the Consolidated Balance Sheet. Derivative financial instruments with a positive fair value are included in assets, and derivative financial instruments with a negative fair value are included in liabilities on the Consolidated Balance Sheet.

Embedded Derivative Financial Instruments

An embedded derivative financial instrument is a component of a financial instrument or another contract, the characteristics of which are similar to those of a derivative product. Taken together, the financial instrument or contract is considered to be a hybrid instrument comprising a host contract and an embedded derivative financial instrument.

Embedded derivatives are bifurcated and accounted for separately if, and only if, the following three conditions are met: the economic characteristics and risks of the embedded derivative are not closely related to those of the host contract, the embedded derivative is a separate instrument that meets the definition of a derivative financial instrument, and the hybrid contract is not recorded at fair value.

An embedded derivative financial instrument is classified with the host contract on the Consolidated Balance Sheet and measured at its fair value. Realized and unrealized gains and losses are recognized in *Non-interest income* in the Consolidated Statement of Income.

Held-for-Trading Derivative Financial Instruments

Derivative financial instruments are recognized at fair value, and the realized and unrealized gains and losses (including interest income and expense) are recorded in *Non-interest income* in the Consolidated Statement of Income.

Derivative Financial Instruments Designated as Hedging Instruments

Policy

The purpose of a hedging transaction is to modify the Bank's exposure to one or more risks by creating an offset between changes in the fair value of, or the cash flows attributable to, the hedged item and the hedging instrument. Hedge accounting ensures that offsetting gains, losses, revenues and expenses are recognized in the Consolidated Statement of Income in the same period or periods.

Documenting and Assessing Effectiveness

The Bank designates and formally documents each hedging relationship, at its inception, by detailing the risk management objective and the hedging strategy. The documentation identifies the specific asset, liability or cash flows being hedged, the related hedging instrument, the nature of the specific risk exposure or exposures being hedged, the intended term of the hedging relationship and the method for assessing the effectiveness or ineffectiveness of the hedging relationship. At the inception of the hedging relationship, and for every financial reporting period for which the hedge has been designated, the Bank ensures that the hedging relationship is highly effective and consistent with its originally documented risk management objective and strategy. When a hedging relationship meets the hedge accounting requirements, it is designated as either a fair value hedge, a cash flow hedge or a foreign exchange hedge of a net investment in a foreign operation.

Fair Value Hedge

In a fair value hedge, the Bank mainly uses interest rate swaps to hedge changes in the fair value of a hedged item. The carrying amount of the hedged item is adjusted based on the effective portion of the gains or losses attributable to the hedged risk, which are recognized in the Consolidated Statement of Income, and on the change in the fair value of the hedging instrument. The resulting ineffective portion is recognized in *Non-interest income* in the Consolidated Statement of Income.

The Bank prospectively discontinues hedge accounting if the hedging instrument is sold or expires or if the hedging relationship no longer qualifies for hedge accounting or if the Bank revokes the designation. When the designation is revoked, the hedged item is no longer adjusted to reflect changes in fair value, and the amounts previously recorded as cumulative adjustments with respect to the effective portion of gains and losses attributable to the hedged risk are amortized using the effective interest rate method and recognized in the Consolidated Statement of Income over the remaining useful life of the hedged item. If the hedged item is sold or terminated before maturity, the cumulative adjustments to the effective portion of gains and losses attributable to the hedged risk are immediately recorded in the Consolidated Statement of Income.

Cash Flow Hedge

In a cash flow hedge, the Bank mainly uses interest rate swaps and total return swaps to hedge variable cash flows attributable to the hedged risk related to a financial asset or liability (or to a group of financial assets or liabilities). The effective portion of changes in fair value of the hedging instrument is recognized in *Other comprehensive income* and the ineffective portion in *Non-interest income* in the Consolidated Statement of Income.

The amounts previously recorded in *Accumulated other comprehensive income* are reclassified to the Consolidated Statement of Income of the period or periods during which the cash flows of the hedged item affect the Consolidated Statement of Income. If the hedging instrument is sold or expires or if the hedging relationship no longer qualifies for hedge accounting or if the Bank cancels that designation, then the amounts previously recognized in *Accumulated other comprehensive income* are reclassified to the Consolidated Statement of Income in the period or periods during which the cash flows of the hedged item affect the Consolidated Statement of Income.

Hedge of a Net Investment in a Foreign Operation

Derivative and non-derivative financial instruments are used to hedge foreign exchange risk related to investments made in foreign operations whose functional currency is not the Canadian dollar. The effective portion of the gains and losses on the hedging instrument is recognized in *Other comprehensive income* and the ineffective portion in *Non-interest income* in the Consolidated Statement of Income. Upon the total or partial sale of a net investment in a foreign operation, amounts reported in *Accumulated other comprehensive income* are reclassified, in whole or in part, to *Non-interest income* in the Consolidated Statement of Income.

Offsetting of Financial Assets and Liabilities

Financial assets and liabilities are offset and the net amount is presented on the Consolidated Balance Sheet when the Bank has a legally enforceable right to set off the recognized amounts and intends to settle on a net basis or to realize the asset and settle the liability simultaneously.

NOTE 1 – BASIS OF PRESENTATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Premises and Equipment

Premises and equipment, except for land, are recognized at cost less accumulated amortization and accumulated impairment losses. Land is recorded at cost net of any impairment losses.

Premises and equipment and the significant components of a building that have different useful lives or that provide economic benefits at a different pace are systematically amortized over their useful lives. Amortization methods and useful lives are reviewed on an annual basis. The amortization expense is recorded in *Non-interest expenses* in the Consolidated Statement of Income.

	Methods	Useful life
Significant components of a building		
Exterior design	Straight-line	20 years
Interior design, roofing and electromechanical system	Straight-line	30 years
Structure	Straight-line	75 years
Other buildings	5% declining balance	
Computer equipment	Straight-line	3-4 years
Other equipment and furniture	Straight-line	1-8 years
Leasehold improvements	Straight-line	(1)

(1) The average amortization period is 15 years, determined using the lesser of the useful life or the lease term plus the first renewal option.

Goodwill

The Bank uses the acquisition method to account for business combinations. The consideration transferred in a business combination is measured at the acquisition-date fair value and the transaction costs related to the acquisition are expensed as incurred. When the Bank acquires control of a business, all of the identifiable assets and liabilities of the acquiree, including intangible assets, are recorded at fair value. The interests previously held in the acquiree are also measured at fair value. Goodwill represents the excess of the purchase consideration and all previously held interests over the fair value of identifiable net assets of the acquiree. If the fair value of identifiable net assets exceeds the purchase consideration and all previously held interests, the difference is immediately recognized as a gain on a bargain purchase.

Non-controlling interests in the net assets of consolidated subsidiaries are identified separately from the Bank's ownership interest and can be initially measured at either fair value or at the non-controlling interest's proportionate share of the acquiree's identifiable net assets. The measurement basis is selected on a case-by-case basis. Following the acquisition, non-controlling interests consist of the value assigned to those interests at initial recognition plus the non-controlling interests' share of changes in equity since the date of the combination.

Intangible Assets

Intangible Assets With Finite Useful Lives

Software, internally-generated technological developments and certain other intangible assets are recognized at cost net of accumulated amortization and accumulated impairment losses. These intangible assets are systematically amortized on a straight-line basis over their useful lives, which vary between four and ten years. The amortization expense is recorded in *Non-interest expenses* in the Consolidated Statement of Income.

Intangible Assets With Indefinite Useful Lives

The Bank's intangible assets with indefinite useful lives come from the acquisition of subsidiaries or groups of assets and consist of management contracts and a trademark. They are recognized at the acquisition-date fair value. The management contracts are for the management of open-ended funds. At the end of each reporting period, the Bank reviews the useful lives to determine whether events and circumstances continue to support an indefinite useful life assessment. Intangible assets are deemed to have an indefinite useful life following an examination of all relevant factors, in particular: a) the contracts do not have contractual maturities; b) stability of the business segment to which the intangible assets belong; c) the Bank's capacity to control the future economic benefits of the intangible assets; and d) continued economic benefits generated by the intangible assets.

Impairment of Non-Financial Assets

Premises and equipment and intangible assets with finite useful lives are tested for impairment when events or changes in circumstances indicate that their carrying value may not be recoverable. At the end of each reporting period, the Bank determines whether there is an indication that premises and equipment or intangible assets with finite useful lives may be impaired. Goodwill and intangible assets that are not yet available for use or that have indefinite useful lives are tested for impairment annually or more frequently if there is an indication that the asset might be impaired.

An asset is tested for impairment by comparing its carrying amount with its recoverable amount. The recoverable amount must be estimated for the individual asset. Where it is not possible to estimate the recoverable amount of an individual asset, the recoverable amount of the cash-generating unit (CGU) to which the asset belongs will be determined. A CGU is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. The Bank uses judgment to identify CGUs.

An asset's recoverable amount is the higher of fair value less costs to sell and the value in use of the asset or CGU. Value in use is the present value of expected future cash flows from the asset or CGU. The recoverable amount of the CGU is determined using valuation models that consider various factors such as projected future cash flows, discount rates and growth rates. The use of different estimates and assumptions in applying the impairment tests could have a significant impact on income.

Corporate assets, such as the head office building and computer equipment, do not generate cash inflows that are largely independent of the cash inflows from other assets or groups of assets. Therefore, the recoverable amount of an individual corporate asset cannot be determined unless management has decided to dispose of the asset. However, if there is an indication that a corporate asset may be impaired, the recoverable amount is determined for the CGU or group of CGUs to which the corporate asset belongs, and is compared with the carrying amount of this CGU or group of CGUs.

Goodwill is always tested for impairment at the level of a CGU or groups of CGUs. For impairment testing purposes, from the acquisition date, goodwill resulting from a business combination must be allocated to the CGU or group of CGUs expected to benefit from the synergies of the business combination. Each CGU or group of CGUs to which goodwill is allocated must represent the lowest level for which the goodwill is monitored internally at the Bank and must not be larger than an operating segment. The allocation of goodwill to a CGU or group of CGUs involves management's judgment. If an impairment loss is to be recognized, the Bank does so by first reducing the carrying amount of goodwill allocated to the CGU or group of CGUs and then reducing the carrying amounts of the other assets of the CGU or group of CGUs in proportion to the carrying amount of each asset in the CGU or group of CGUs.

If the recoverable amount of an asset or a CGU is less than its carrying amount, the carrying amount is reduced to its recoverable amount and an impairment loss is recognized in *Non-interest expenses* in the Consolidated Statement of Income. An impairment loss recognized in prior periods for an asset other than goodwill must be reversed if, and only if, there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment was recognized. If this is the case, the carrying amount of the asset is increased, as the impairment loss was reversed, but shall not exceed the carrying amount that would have been determined, net of amortization, had no impairment loss been recognized for this asset in previous years.

Leases

A lease is an agreement whereby the lessor conveys to the lessee the right to use an asset for an agreed period of time in return for a payment or series of payments. A finance lease is a lease that transfers substantially all the risks and rewards incidental to ownership of the leased asset to the lessee. Title may or may not eventually be transferred. An operating lease is a lease other than a finance lease. The Bank primarily enters into operating leases.

When the Bank is the lessee under an operating lease, the rental expense is recognized on a straight-line basis over the lease term in *Non-interest expenses* in the Consolidated Statement of Income. When the Bank is the lessor, the lease assets remain on the Consolidated Balance Sheet and are reported in premises and equipment, and the rental income is recognized net of related expenses in *Non-interest income* in the Consolidated Statement of Income.

Provisions

Provisions are liabilities of uncertain timing and amount. A provision is recognized when the Bank has a present obligation (legal or constructive) arising from a past event, when it is probable that an outflow of economic resources will be required to settle the obligation and when the amount of the obligation can be reliably estimated. Provisions are based on the Bank's best estimates of the economic resources required to settle the present obligation, given all relevant risks and uncertainties, and, when it is significant, the effect of the time value of money. The provisions are reviewed at the end of each reporting period. Provisions are presented in *Other liabilities* on the Consolidated Balance Sheet.

NOTE 1 – BASIS OF PRESENTATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Revenue Recognition

The Bank's revenues are recognized in the Consolidated Statement of Income as they are earned.

Interest Income and Expense

Interest income and expense, except for the interest income on securities classified as at fair value through profit or loss, are recognized in *Net interest income* and calculated using the effective interest rate method. The effective interest rate is the rate that discounts estimated future cash inflows and outflows through the expected life of the financial instrument (or, when appropriate, a shorter period) to the net carrying amount of the instrument. When calculating the effective interest rate, the Bank estimates cash flows considering all contractual terms of the financial instrument but without considering future credit losses and also includes all fees paid or received related to the contract that are an integral part of the effective interest rate, transaction costs and all other premiums or discounts.

Commission Revenues

Loan origination fees, including commitment, restructuring and renegotiation fees, are considered an integral part of the yield earned on the loan. They are deferred and amortized using the effective interest rate method, and the amortization is recognized in *Interest income* over the term of the loan. Direct costs for originating a loan are netted against the loan origination fees. If it is likely that a commitment will result in a loan, commitment fees receive the same accounting treatment, i.e., they are deferred and amortized using the effective interest rate method and the amortization is recognized in *Interest income* over the term of the loan. Otherwise, they are recorded in *Non-interest income* over the term of the commitment.

Loan syndication fees are recorded in *Non-interest income* unless the yield on the loan retained by the Bank is less than that of other comparable lenders involved in the financing. In such cases, an appropriate portion of the fees is deferred and amortized using the effective interest rate method, and the amortization is recognized in *Interest income* over the term of the loan. Certain mortgage loan prepayment fees are recognized as *Credit fees* in the Consolidated Statement of Income when earned.

Dividend Income

Dividends from an equity instrument are recognized in the Consolidated Statement of Income when the Bank's right to receive payment is established.

Insurance Revenues

Insurance contracts, including reinsurance contracts, are arrangements under which one party accepts significant insurance risk by agreeing to compensate the policyholder if a specified uncertain future event were to occur. Gross premiums, net of premiums transferred under reinsurance contracts, are recognized when they become due. Royalties received from reinsurers are recognized when earned. Claims are recognized when received and an amount is estimated as they are being processed. All of these amounts are recognized on a net basis in *Non-interest income* in the Consolidated Statement of Income.

Upon recognition of a premium, a reinsurance asset and insurance liability are recognized, respectively, in *Other assets* and in *Other liabilities* on the Consolidated Balance Sheet. Subsequent changes in the carrying value of the reinsurance asset and insurance liability are recognized on a net basis in *Non-interest income* in the Consolidated Statement of Income.

Income Taxes

Income taxes include current taxes and deferred taxes and are recorded in net income except for income taxes generated by items recognized in *Other comprehensive income* or directly in equity.

Current tax is the amount of income tax payable on the taxable income for a period. It is calculated using the enacted or substantively enacted tax rates prevailing on the reporting date, and any adjustments recognized in the period for current tax of prior periods. Current tax assets and liabilities are offset and the net balance is presented in either *Other assets* or *Other liabilities* on the Consolidated Balance Sheet when the Bank has a legally enforceable right to set off the recognized amounts and intends to settle on a net basis or to simultaneously realize the asset and settle the liability.

Deferred tax is established based on temporary differences between the carrying values and the tax bases of assets and liabilities, in accordance with enacted or substantively enacted income tax laws and rates that will apply on the date the differences will reverse. Deferred tax is not recognized for temporary differences related to the following:

- the initial accounting of goodwill;
- the initial accounting of an asset or liability in a transaction that is not a business combination and that, at the time of the transaction, affects neither accounting income nor taxable income;
- investments in subsidiaries, associates and joint ventures when it is probable that the temporary difference will not reverse in the foreseeable future and that the Bank controls the timing of the reversal of the temporary difference;
- investments in subsidiaries, associates and joint ventures when it is probable that the temporary difference will not reverse in the foreseeable future and that there will not be taxable income to which the temporary difference can be recognized.

Deferred tax assets are tax benefits in the form of deductions the Bank may claim to reduce its taxable income in future years. At the end of each reporting period, the carrying amount of deferred tax assets is revised and reduced to the extent that it is no longer probable that sufficient taxable income will be available to allow the benefit of the deferred tax asset to be utilized.

Deferred tax assets and liabilities are offset and the net balance is presented in either *Other assets* or *Other liabilities* on the Consolidated Balance Sheet when the Bank has a legally enforceable right to set off the current tax assets and liabilities, and if the deferred tax assets and liabilities relate to taxes levied by the same taxation authority on the same taxable entity, or on different taxable entities that intend to settle current tax assets and liabilities based on their net amount.

The Bank makes assumptions to estimate income taxes as well as deferred tax assets and liabilities. This process includes estimating the actual amount of current taxes and evaluating tax loss carryforwards and temporary differences arising from differences between the values of the items reported for accounting and for income tax purposes. Deferred tax assets and liabilities presented on the Consolidated Balance Sheet are calculated according to the tax rates to be applied in future periods. Previously recorded deferred tax assets and liabilities must be adjusted when the date of the future event is revised based on current information.

Moreover, the Bank is subject to the jurisdiction of various tax authorities. In the normal course of its business, the Bank is involved in a number of transactions for which the tax impacts are uncertain. As a result, the Bank accounts for provisions for uncertain tax positions that adequately represent the tax risk stemming from tax matters under discussion or being audited by tax authorities or from other matters involving uncertainty. The amounts of these provisions reflect the best possible estimates of the amounts that may have to be paid based on qualitative assessments of all relevant factors. The provisions are estimated at the end of each reporting period. However, it is possible that an adjustment to the provision needs to be recognized at a future date following an audit by the tax authorities. When the final assessment differs from the initially provisioned amounts, the difference will impact the income taxes of the period in which the assessment was made.

Financial Guarantee Contracts

A financial guarantee contract is a contract or indemnification agreement that could require the Bank to make specified payments (in cash, financial instruments, other assets, Bank shares, or provisions of services) to reimburse the beneficiary in the event of a loss resulting from a debtor defaulting on the original or amended terms of a debt instrument.

To reflect the fair value of the obligation assumed at the inception of a financial guarantee, a liability is recorded in *Other liabilities* on the Consolidated Balance Sheet. After initial recognition, the Bank must measure financial guarantee contracts at the higher of the estimated amount needed to settle the financial obligation under the guarantee or the amount initially recognized less, where applicable, the accumulated amortization that corresponds to revenue earned during the period. This revenue is recognized in *Credit fees* in the Consolidated Statement of Income.

Employee Benefits – Pension Plans and Other Post-Employment Benefits

The Bank offers defined benefit pension plans and other post-employment benefit plans to eligible employees. The other post-employment benefit plans include post-retirement medical, dental and life insurance coverage. While pension plans are funded, the other plans are not.

Plan expenses and obligations are actuarially determined based on the projected benefit method prorated on service. The calculations use management's best estimates of various actuarial assumptions such as discount rates, rates of compensation increase, health care cost trend rates, mortality rates and retirement age.

The net asset or net liability of pension plans and other post-employment benefit plans are calculated separately for each plan as the difference between the present value of the future benefits earned by employees in respect of current- and prior-period service and the fair value of plan assets. The net asset or net liability is included in either the *Other assets* or *Other liabilities* item of the Consolidated Balance Sheet.

The expense related to pension plans and other post-employment benefit plans consists of the following items: current service cost, net interest on the net plan asset or liability, administration costs and past service cost, if any, recognized when a plan is amended. This expense is recognized in *Compensation and employee benefits* in the Consolidated Statement of Income. The net amount of interest income and expense is determined by applying a discount rate to the net plan asset or liability amount.

Remeasurements resulting from pension plans and other post-employment benefit plans represent actuarial gains and losses related to the defined benefit obligation and the actual return on plan assets, excluding net interest determined by applying a discount rate to the net asset or liability of the plans. Remeasurements are immediately recognized in *Other comprehensive income* and will not be subsequently reclassified to net income; these cumulative gains and losses are reclassified to *Retained earnings.*

NOTE 1 – BASIS OF PRESENTATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Share-Based Payments

The Bank has several share-based compensation plans: the Stock Option Plan, the Stock Appreciation Rights (SAR) Plan, the Deferred Stock Unit (DSU) Plan, the Restricted Stock Unit (RSU) Plan, the Performance Stock Unit (PSU) Plan, the Deferred Compensation Plan (DCP) of National Bank Financial and the Employee Share Ownership Plan.

Compensation expense is recognized over the service period required for employees to become fully entitled to the award. This period is generally the same as the vesting period, except where the required service period begins before the award date. Compensation expense related to awards granted to employees eligible to retire on the award date is immediately recognized on the award date. Compensation expense related to awards granted to employees who will become eligible to retire during the vesting period is recognized over the period from the award date to the date the employee becomes eligible to retire. For all of these plans, as of the first year of recognition, the expense includes cancellation and forfeiture estimates. These estimates are subsequently revised as necessary. The Bank uses derivative financial instruments to hedge the risks associated with some of these plans. The compensation expense for these plans, net of related hedges, is recognized in the Consolidated Statement of Income.

Under the Stock Option Plan, the Bank uses the fair value method to account for stock options awarded. The options vest at 25% per year, and each tranche is treated as though it was a separate award. The fair value of each of the tranches is measured on the award date using the Black-Scholes model, and this fair value is recognized in *Compensation and employee benefits* and *Contributed surplus.* When the options are exercised, the *Contributed surplus* amount is credited to *Equity – Common shares* on the Consolidated Balance Sheet. The proceeds received from the employees when these options are exercised are also credited to *Equity – Common shares* on the Consolidated Balance Sheet.

SARs are recorded at fair value when awarded and their fair value is remeasured at the end of each reporting period until they are exercised. The cost is recognized in *Compensation and employee benefits* in the Consolidated Statement of Income and in *Other liabilities* on the Consolidated Balance Sheet. The obligation that results from the change in fair value at each period is recognized in net income gradually over the vesting period, and periodically thereafter, until the SARs are exercised. When a SAR is exercised, the Bank makes a cash payment equal to the increase in the stock price since the date of the award.

The obligation that results from the award of a DSU, RSU, PSU and DCP unit is recognized in net income, and the corresponding amount is included in *Other liabilities* on the Consolidated Balance Sheet. For the DSU, RSU and DCP plans, the change in the obligation attributable to variations in the share price and dividends paid on common shares for these plans is recognized in *Compensation and employee benefits* in the Consolidated Statement of Income for the period in which the variations occur. On the redemption date, the Bank makes a cash payment equal to the value of the common shares on that date. For the PSU Plan, the change in the obligation attributable to changes in the stock price, adjusted upward or downward depending on the relative result of the performance criteria, and the change in the obligation attributable to dividends paid on the shares awarded under the plan, are recognized in *Compensation and employee benefits* in the Consolidated Statement of Income for the period in which the changes occur. On the redemption date, the Bank makes a cash payment equal to the value of the common shares on that date, adjusted upward or downward according to the performance criteria. This is based on the total shareholder return (TSR) achieved by the Bank compared to that of the S&P/TSX Banks adjusted sub-index.

The Bank's contributions to the employee share ownership plan are expensed as incurred.

NOTE 2 – FUTURE ACCOUNTING POLICY CHANGES

The IASB issues revisions and amendments to a number of standards, some of which have already had an impact on the Bank and others that could have an impact in the future. The Bank is currently assessing the impact that adoption of the following standards will have on its consolidated financial statements. A summary of these amendments and the effective dates applicable to the Bank are presented below.

Effective Date – Early Adoption on November 1, 2017
IFRS 9 – *Financial Instruments*
In July 2014, the IASB issued a complete and final version of IFRS 9, which replaces the current standard on financial instruments. IFRS 9 sets out requirements for the classification and measurement of financial assets and financial liabilities, for the impairment of financial assets, and for general hedge accounting. Macro hedge accounting has been decoupled from IFRS 9 and will be considered and issued as a separate standard.

The IASB is requiring IFRS 9 to be applied as of November 1, 2018 and is permitting early adoption. On January 9, 2015, OSFI issued a final version of *Early Adoption of IFRS 9 Financial Instruments for Domestic Systemically Important Banks*, stating, however, that it expects Domestic Systemically Important Banks, a group that includes the Bank, to adopt IFRS 9 as of November 1, 2017. In general, IFRS 9 is to be applied retrospectively.

The Bank will therefore adopt the IFRS 9 provisions as of November 1, 2017. Its first financial statements presented in accordance with these provisions will be its unaudited interim condensed consolidated financial statements for the quarter ending January 31, 2018 and will include an opening consolidated balance sheet as at November 1, 2017.

In preparation for the adoption of IFRS 9, the Bank has established an enterprise-wide project, assembled a dedicated team, and established a formal governance structure. It has also implemented a detailed project plan that sets out the key activities and a corresponding schedule. The project is proceeding according to schedule. As interpretations of the new standard are still evolving, the Bank continues to monitor the interpretations and revisit its preliminary conclusions.

Classification and Measurement
IFRS 9 provides a single model for financial asset classification and measurement that is based on both the business model for managing financial assets and the contractual cash flow characteristics of the financial assets. These factors determine whether the financial assets are measured at amortized cost, fair value through other comprehensive income or fair value through profit or loss.

IFRS 9 requires that all debt instrument financial assets, including loans, that do not meet a "solely payment of principal and interest" (SPPI) test, including those that contain embedded derivatives, be classified as at fair value through profit or loss at initial recognition. For those that meet the SPPI test, classification at initial recognition will be determined based on the business model under which these assets are managed. Debt instruments that are managed on a "held for trading" or fair value basis will be classified as at fair value through profit or loss. Debt instruments that are managed on a "hold to collect and for sale" basis will be classified as at fair value through other comprehensive income. Finally, those that are managed on a "hold to collect" basis will be classified as at amortized cost. In addition, IFRS 9 also includes an option to irrevocably designate at initial recognition a debt instrument as measured at fair value through profit or loss if doing so eliminates or significantly reduces an accounting mismatch and if OSFI requirements are also met.

Under IFRS 9, all equity instrument financial assets must be classified as at fair value through profit or loss unless, at initial recognition, an irrevocable election is made to classify the equity instrument as at fair value through other comprehensive income, with no subsequent reclassification of gains and losses to net income. Derivatives will continue to be measured at fair value through profit or loss.

The classification and measurement of financial liabilities remain essentially unchanged under IFRS 9, except for financial liabilities designated as measured at fair value through profit or loss under the fair value option. Once this fair value election is made, changes in fair value attributable to changes in an entity's own credit risk must be recognized in other comprehensive income rather than in net income. The Bank adopted the own credit risk provisions of IFRS 9 on February 1, 2016.

NOTE 2 – FUTURE ACCOUNTING POLICY CHANGES (cont.)

Impairment
IFRS 9 introduces a new, single impairment model for financial assets not measured at fair value through profit or loss that requires the recognition of expected credit losses (ECL) rather than incurred losses as applied under the current standard. The ECL model also applies to loan commitments and financial guarantees that are not measured at fair value through profit or loss. Currently, impairment losses are recognized if, and only if, there is objective evidence of impairment as a result of one or more loss events that have occurred after initial recognition of the asset and that loss event has a detrimental impact on the estimated future cash flows of the asset that can be reliably estimated. If there is no objective evidence of impairment for an individual financial asset, the financial asset is included in a group of assets with similar credit risk characteristics and collectively assessed for impairment losses incurred but not identified. Under IFRS 9, ECLs will be recognized in profit or loss before a loss event has occurred.

Under the current standard, incurred losses are measured by incorporating reasonable and supportable information about past events and current conditions. Under IFRS 9, the ECL model, which is forward-looking, also requires that forecasts of future events and economic conditions be used in determining significant increases in credit risk and in measuring expected losses. ECLs are measured as the probability-weighted present value of expected cash shortfalls over the remaining expected life of the financial instrument.

The ECL model contains a three-stage approach that is based on the change in the credit quality of assets since initial recognition. If, at the reporting date, the credit risk of non-impaired financial instruments has not increased significantly since initial recognition, these financial instruments are classified in stage one, and a loss allowance that is measured, at each reporting date, at an amount equal to 12-month expected credit losses is recorded. When there is a significant increase in credit risk since initial recognition, these non-impaired financial instruments are migrated to stage two, and a loss allowance that is measured, at each reporting date, at an amount equal to lifetime expected credit losses is recorded. In subsequent reporting periods, if the credit risk of the financial instrument improves such that there is no longer a significant increase in credit risk since initial recognition, the ECL model requires reverting to recognition of 12-month expected credit losses. To assess whether or not the credit risk of a financial instrument has increased significantly, the risk of default occurring over its expected life as at the reporting date is compared with the risk of default occurring over its expected life on the date of initial recognition, and reasonable and supportable information indicative of significant increases in credit risk since initial recognition is considered. When one or more events that have a detrimental impact on the estimated future cash flows of a financial asset have occurred, the financial asset is considered credit-impaired and is migrated to stage three, and an allowance equal to lifetime expected losses continues to be recorded or the financial asset is written off.

In December 2015, the Basel Committee on Banking Supervision issued *Guidance on Credit Risk and Accounting for Expected Credit Losses*. In June 2016, OSFI issued the final guideline on *IFRS 9 Financial Instruments and Disclosures*, setting out its expectations regarding IFRS 9 application.

Hedging
As for the new hedge accounting model, it provides better alignment of hedge accounting with risk management activities. However, the current hedge accounting requirements may continue to be applied until the IASB finalizes its macro hedge accounting project.

Effective Date – November 1, 2018
IFRS 15 – *Revenue From Contracts With Customers*
In May 2014, the IASB issued a new standard, IFRS 15, which replaces the current revenue recognition standards and interpretations. IFRS 15 provides a single comprehensive model to use when accounting for revenue arising from contracts with customers. The new model applies to all contracts with customers except those that are within the scope of other IFRS standards such as leases, insurance contracts and financial instruments. IFRS 15 is to be applied retrospectively.

At its meeting on July 22, 2015, the IASB unanimously confirmed its proposal to defer the effective date of IFRS 15 to fiscal years beginning on or after January 1, 2018. Early application is still permitted.

Effective Date – November 1, 2019
IFRS 16 – *Leases*
In January 2016, the IASB issued a new standard, IFRS 16 – *Leases*. The new standard requires lessees to recognize most leases on the balance sheet using a single model, thereby eliminating the distinction between operating and finance leases. Lessor accounting, however, remains similar to current accounting practice, and the distinction between operating and finance leases is retained. Early application is permitted if IFRS 15 – *Revenue From Contracts With Customers* has also been applied.

NOTE 3 – FAIR VALUE OF FINANCIAL INSTRUMENTS

Fair Value and Carrying Value of Financial Instruments by Category

Financial assets and financial liabilities are recognized on the Consolidated Balance Sheet at fair value or at amortized cost in accordance with the categories set out in the accounting framework for financial instruments.

	As at October 31, 2016						
	Carrying value and fair value			Carrying value	Fair value		
	Financial instruments classified as at fair value through profit or loss	Financial instruments designated at fair value through profit or loss	Available-for-sale	Financial instruments at amortized cost	Financial instruments at amortized cost	Total carrying value	Total fair value
Financial assets							
Cash and deposits with financial institutions	–	–	–	8,183	8,183	8,183	8,183
Securities	44,499	1,465	14,608	3,969	3,993	64,541	64,565
Securities purchased under reverse repurchase agreements and securities borrowed	–	158	–	13,790	13,790	13,948	13,948
Loans and acceptances	6,290	164	–	119,724	120,641	126,178	127,095
Other							
Derivative financial instruments	10,416	–	–	–	–	10,416	10,416
Due from clients, dealers and brokers	–	–	–	843	843	843	843
Purchased receivables	–	–	–	1,858	1,858	1,858	1,858
Other assets	–	–	–	474	474	474	474
Financial liabilities							
Deposits	–	4,655		135,252 [1]	136,108	139,907	140,763
Other							
Acceptances	–	–		6,441	6,441	6,441	6,441
Obligations related to securities sold short	14,207	–		–	–	14,207	14,207
Obligations related to securities sold under repurchase agreements and securities loaned	–	–		22,636	22,636	22,636	22,636
Derivative financial instruments	7,725	–		–	–	7,725	7,725
Due to clients, dealers and brokers	–	–		2,699	2,699	2,699	2,699
Liabilities related to transferred receivables	–	6,206		13,925	13,974	20,131	20,180
Other liabilities	43	–		2,618	2,633	2,661	2,676
Subordinated debt	–	–		1,012	1,013	1,012	1,013

(1) Includes embedded derivative financial instruments.

NOTE 3 – FAIR VALUE OF FINANCIAL INSTRUMENTS (cont.)

As at October 31, 2015

	Carrying value and fair value			Carrying value	Fair value		
	Financial instruments classified as at fair value through profit or loss	Financial instruments designated at fair value through profit or loss	Available-for-sale	Financial instruments at amortized cost	Financial instruments at amortized cost	Total carrying value	Total fair value
Financial assets							
Cash and deposits with financial institutions	–	–	–	7,567	7,567	7,567	7,567
Securities	39,753	2,244	14,043	–	–	56,040	56,040
Securities purchased under reverse repurchase agreements and securities borrowed	–	295	–	17,407	17,407	17,702	17,702
Loans and acceptances	4,413	152	–	110,673	111,407	115,238	115,972
Other							
Derivative financial instruments	10,842	–	–	–	–	10,842	10,842
Due from clients, dealers and brokers	–	–	–	415	415	415	415
Purchased receivables	–	–	–	1,438	1,438	1,438	1,438
Other assets	–	–	–	459	459	459	459
Financial liabilities							
Deposits	–	3,053		125,777 [1]	126,247	128,830	129,300
Other							
Acceptances	–	–		9,400	9,400	9,400	9,400
Obligations related to securities sold short	17,333	–		–	–	17,333	17,333
Obligations related to securities sold under repurchase agreements and securities loaned	–	–		13,779	13,779	13,779	13,779
Derivative financial instruments	7,756	–		–	–	7,756	7,756
Due to clients, dealers and brokers	–	–		1,871	1,871	1,871	1,871
Liabilities related to transferred receivables	–	6,402		13,368	13,427	19,770	19,829
Other liabilities	50	–		2,227	2,227	2,277	2,277
Subordinated debt	–	–		1,522	1,526	1,522	1,526

(1) Includes embedded derivative financial instruments.

Establishing Fair Value

The fair value of a financial instrument is the price that would be received to sell a financial asset or paid to transfer a financial liability in an orderly transaction in the principal market at the measurement date under current market conditions (i.e., an exit price).

Unadjusted quoted prices in active markets provide the best evidence of fair value. When there is no quoted price in an active market, the Bank applies other valuation techniques that maximize the use of relevant observable inputs and that minimize the use of unobservable inputs. Such valuation techniques include the following: using information available from recent market transactions, referring to the current fair value of a comparable financial instrument, applying discounted cash flow analysis, applying option pricing models, or relying on any other valuation technique that is commonly used by market participants and has proven to yield reliable estimates. Judgment is required when applying many of the valuation techniques. The Bank's valuation was based on its assessment of the conditions prevailing as at October 31, 2016 and may change in the future. Furthermore, there may be valuation uncertainty resulting from the choice of valuation model used.

Valuation Governance
Fair value is established in accordance with a rigorous control framework. The Bank has policies and procedures that govern the process for determining fair value. These policies are documented and periodically reviewed by the Risk Management Group. All valuation models are validated, and controls have been implemented to ensure that they are applied.

The fair value of existing or new products is determined and validated by functions independent of the risk-taking team. Complex fair value matters are reviewed by valuation committees made up of experts from various specialized functions.

For financial instruments classified in Level 3 of the fair value hierarchy, the Bank has documented the classification policies to determine the hierarchy, and there are controls in place to ensure that fair value is measured appropriately, reliably and consistently. Valuation methods and the underlying assumptions are reviewed on a regular basis.

Valuation Methods and Assumptions
Financial Instruments Whose Fair Value Equals Carrying Value
The carrying value of the following financial instruments is a reasonable approximation of fair value:

- cash and deposits with financial institutions;
- securities purchased under reverse repurchase agreements and securities borrowed;
- obligations related to securities sold under repurchase agreements and securities loaned;
- customers' liability under acceptances;
- acceptances;
- amounts due from clients, dealers and brokers;
- purchased receivables;
- amounts due to clients, dealers and brokers;
- certain items of other assets and other liabilities.

Securities and Obligations Related to Securities Sold Short
These financial instruments are recognized at fair value on the Consolidated Balance Sheet. Their fair value is based on quoted prices in active markets, i.e., bid prices for financial assets and offered prices for financial liabilities. If there are no quoted prices in an active market, fair value is estimated based on prices for securities that, in substance, are identical. If such prices are not available, fair value is determined using valuation techniques that incorporate assumptions based primarily on observable market inputs such as current market prices, the contractual prices of the underlying instruments, the time value of money, credit risk, interest rate yield curves and currency rates.

When one or more significant inputs are not observable in the markets, fair value is established primarily on the basis of internal estimates and data that consider the valuation policies in effect at the Bank, economic conditions, the specific characteristics of the financial asset or liability and other relevant factors.

Securities Issued or Guaranteed by the Government of Canada, Canadian Provincial and Municipal Governments, and U.S. Agencies
Securities issued or guaranteed include government debt securities of the governments of Canada (federal, provincial and municipal) as well as debt securities of the U.S. government (U.S. Treasury), of other U.S. agencies and of other foreign governments. The fair value of these securities is based on unadjusted quoted prices in active markets. For those classified in Level 2, quoted prices for identical or similar instruments in active markets are used to determine fair value. In the absence of an observable market, valuation techniques such as the discounted cash flow method could be used, incorporating assumptions on benchmark yields (CDOR, LIBOR and other) and the risk spreads of similar securities.

NOTE 3 – FAIR VALUE OF FINANCIAL INSTRUMENTS (cont.)

Equity Securities and Other Debt Securities

The fair value of equity securities is determined primarily by using quoted prices in active markets. For equity securities and other debt securities classified in Level 2, a valuation technique based on quoted prices of identical and similar instruments in an active market is used to determine fair value. In the absence of observable inputs, valuation techniques such as the discounted cash flow method could be used, incorporating assumptions on benchmark yields (CDOR, LIBOR and other) and the risk spreads of similar securities. For those classified in Level 3, fair value can be determined based on the net asset value, which represents the estimated value of a security based on valuations received from investment or fund managers or the general partners of the limited partnerships. Fair value can also be determined using internal valuation techniques adjusted for risk factors related to the financial instruments and for economic conditions.

Restructured Notes of the Master Asset Vehicle (MAV) Conduits

In establishing the fair value of the restructured notes of the MAV conduits classified as Level 2, the Bank considered the quality of the underlying assets. The Bank determined fair value using a valuation technique that incorporates discounted cash flows. For the restructured notes of the MAV I and MAV II conduits, the discount rate is based 80% on the CDX.IG index tranches and 20% on a basket of securities backed by assets such as credit card receivables, Residential Mortgage-Backed Securities (RMBS), Commercial Mortgage-Backed Securities (CMBS) and automobile loans.

In establishing the fair value of the restructured notes, the Bank adjusts, as required, its liquidity assumption to reflect market conditions. The Bank determines the fair value of the restructured notes of the MAV conduits it is holding by comparing the value obtained using the above-described methodology against a range of values. The values situated in this range were obtained by adjusting various liquidity scenarios.

Other Restructured Notes of MAV I and MAV II Conduits

The fair value of these financial instruments, which are classified in Level 3, is determined based on the net asset value, which represents the estimated value of a security based on valuations received from the administrator of the conduits.

Derivative Financial Instruments

Derivative financial instruments are recorded at fair value on the Consolidated Balance Sheet. For exchange-traded derivative financial instruments, fair value is based on the quoted price in an active market, i.e., bid prices for financial assets or offered prices for financial liabilities.

For over-the-counter (OTC) derivative financial instruments, fair value is determined using well established valuation techniques that incorporate assumptions based primarily on observable market inputs such as current market prices and the contractual prices of the underlying instruments, the time value of money, interest rate yield curves, credit curves, currency rates as well as price and rate volatility factors. In establishing the fair value of OTC derivative financial instruments, the Bank also incorporates the following factors:

Credit Valuation Adjustment (CVA)

The CVA is a valuation adjustment applied to derivative financial instruments to reflect the credit risk of the counterparty. For each counterparty, the CVA is based on the expected positive exposure and probabilities of default through time. The exposures are determined by incorporating relevant factors such as current and potential future market values, master netting arrangements, collateral agreements and expected recovery rates. The default probabilities are inferred using credit default swap (CDS) spreads. When unavailable, relevant proxies are used. While the general methodology currently assumes independence between expected positive exposures and probabilities of default, adjustments are applied to certain types of transactions where there is a direct link between the exposure at default and the default probabilities.

Debit Valuation Adjustment (DVA)

The DVA reflects the Bank's own credit risk in the valuation of derivative financial instruments. The DVA is based on the expected negative exposure and probabilities of default of the Bank over time. The exposures are determined by incorporating relevant factors such as current and potential future market values, master netting arrangements, collateral agreements and expected recovery rates. The market implied spreads of the Bank are used in the calculation of the DVA.

Funding Valuation Adjustment (FVA)
The FVA is a valuation adjustment applied to derivative financial instruments to reflect the market implied cost or benefits of funding collateral for uncollateralized or partly collateralized transactions. The expected exposures are determined using methodologies consistent with the CVA and DVA framework. The funding level used to determine the FVA is based on the average funding level of relevant market participants.

When the valuation techniques incorporate one or more significant inputs that are not observable in the markets, the fair value of OTC derivative financial instruments is established primarily on the basis of internal estimates and data that consider the valuation policies in effect at the Bank, economic conditions, the specific characteristics of the financial asset or financial liability and other relevant factors.

Loans
The fair value of fixed-rate mortgage loans is determined by discounting expected future contractual cash flows, adjusted for several factors, including prepayment options, current market interest rates for similar loans, and other relevant variables where applicable. The fair value of variable-rate mortgage loans is deemed to equal carrying value.

The fair value of other fixed-rate loans is determined by discounting expected future contractual cash flows using current market interest rates charged for similar new loans. The fair value of variable-rate loans is deemed to equal carrying value.

Deposits
The fair value of fixed-term deposits is determined primarily by discounting expected future contractual cash flows and considering several factors such as redemption options and market interest rates currently offered for financial instruments with similar conditions. For certain term funding instruments, fair value is determined using market prices for similar instruments. The fair value of demand deposits and notice deposits is deemed to equal carrying value.

The fair value of structured deposit notes is established using valuation models that maximize the use of observable inputs when available, such as benchmark indices, and also incorporates the DVA, which reflects the Bank's own credit risk. In calculating DVA, the market implied spreads of the Bank are used to infer its probabilities of default. Lastly, when fair value is determined using option pricing models, the valuation techniques are similar to those described for derivative financial instruments.

Liabilities Related to Transferred Receivables
These liabilities arise from sale transactions to Canada Housing Trust (CHT) of securities backed by insured residential mortgages and other securities under the Canada Mortgage Bond (CMB) program. These transactions do not qualify for derecognition. They are recorded as guaranteed borrowings, which results in the recording of liabilities on the Consolidated Balance Sheet. The fair value of these liabilities is established using valuation techniques based on observable market inputs such as Canada Mortgage Bond prices.

Other Liabilities and Subordinated Debt
The fair value of these financial liabilities is based on quoted market prices in an active market. If there is no active market, fair value is determined by discounting contractual cash flows using the current market interest rates offered for similar financial instruments that have the same term to maturity.

NOTE 3 – FAIR VALUE OF FINANCIAL INSTRUMENTS (cont.)

Hierarchy of Fair Value Measurements

IFRS establishes a fair value hierarchy that classifies the inputs used in financial instrument fair value measurement techniques according to three levels. This fair value hierarchy requires observable market inputs to be used whenever such inputs exist. According to the hierarchy, the highest level of inputs are unadjusted quoted prices in active markets for identical instruments and the lowest level of inputs are unobservable inputs. If inputs from different levels of the hierarchy are used, the financial instrument is classified in the same level as the lowest level input that is significant to the fair value measurement. The fair value hierarchy has the following levels.

- Level 1: Inputs corresponding to unadjusted quoted prices in active markets for identical assets and liabilities and accessible to the Bank at the measurement date. These instruments consist primarily of equity securities, derivative financial instruments traded in active markets, and certain highly liquid debt securities actively traded in over-the-counter markets.
- Level 2: Valuation techniques based on inputs, other than the quoted prices included in Level 1 inputs, that are directly or indirectly observable in the market for the asset or liability. These inputs are quoted prices of similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; inputs other than quoted prices used in a valuation model that are observable for that instrument; and inputs that are derived principally from or corroborated by observable market inputs by correlation or other means. These instruments consist primarily of certain loans, certain deposits, derivative financial instruments traded in over-the-counter markets, certain debt securities, certain equity securities whose value is not directly observable in an active market, liabilities related to transferred receivables and certain other liabilities.
- Level 3: Valuation techniques based on one or more significant inputs that are not observable in the market for the asset or liability. The Bank classifies financial instruments in Level 3 when the valuation technique is based on at least one significant input that is not observable in the markets. The valuation technique may also be partly based on observable market inputs.

Financial instruments whose fair values are classified in Level 3 consist of the following:

- financial instruments measured at fair value through profit or loss: certain investments in asset-backed debt securities, investments in hedge funds for which there are certain restrictions on unit or security redemptions, as well as certain derivative financial instruments whose fair value is established using internal valuation models that are based on significant unobservable market inputs.
- available-for-sale securities: restructured notes as well as equity and debt securities of private companies.
- certain deposits (structured deposit notes) whose fair value is established using internal valuation models that are based on significant unobservable market inputs.

Transfers Between the Fair Value Hierarchy Levels
Transfers of financial instruments between Levels 1 and 2 and transfers to (or from) Level 3 are deemed to have taken place at the beginning of the quarter in which the transfer occurred. Significant transfers can occur between the fair value hierarchy levels due to new information on inputs used to determine fair value and the observable nature of those inputs.

During fiscal 2016, $214 million in securities classified as at fair value through profit or loss and $71 million in obligations related to securities sold short were transferred from Level 2 to Level 1 resulting from changing market conditions ($120 million in securities classified as at fair value through profit or loss and no significant transfer of obligations related to securities sold short in fiscal 2015). In addition, during fiscal 2016, $56 million in securities classified as at fair value through profit or loss was transferred from Level 1 to Level 2 (no significant transfer for fiscal 2015).

During fiscal 2015, the Bank had transferred $631 million in restructured notes, comprising restructured notes of the MAV conduits as well as certain other restructured notes, from Level 3 to Level 2 as the unobservable inputs did not have a significant impact on fair value determination given the short expected maturity. During fiscal years 2016 and 2015, other financial instruments were transferred to (or from) Level 3 due to changes in the availability of observable market inputs resulting from changing market conditions.

Financial Instruments Recorded at Fair Value on the Consolidated Balance Sheet

The following tables show financial instruments recorded at fair value on the Consolidated Balance Sheet according to the fair value hierarchy.

				As at October 31, 2016
	Level 1	Level 2	Level 3	Total financial assets/liabilities at fair value
Financial assets				
Securities				
At fair value through profit or loss				
Securities issued or guaranteed by				
Canadian government	2,284	4,904	–	7,188
Canadian provincial and municipal governments	–	10,547	–	10,547
U.S. Treasury, other U.S. agencies and other foreign governments	3,968	206	–	4,174
Other debt securities	–	2,934	–	2,934
Equity securities	20,410	693	18	21,121
	26,662	19,284	18	45,964
Available-for-sale				
Securities issued or guaranteed by				
Canadian government	241	6,040	–	6,281
Canadian provincial and municipal governments	–	4,996	–	4,996
U.S. Treasury, other U.S. agencies and other foreign governments	1,614	95	–	1,709
Other debt securities	–	948	30	978
Equity securities	201	168	275	644
	2,056	12,247	305	14,608
Securities purchased under reverse repurchase agreements and securities borrowed	–	158	–	158
Loans and acceptances	–	6,454	–	6,454
Other				
Derivative financial instruments	87	10,196	133	10,416
	28,805	48,339	456	77,600
Financial liabilities				
Deposits	–	4,788	7	4,795
Other				
Obligations related to securities sold short	8,732	5,475	–	14,207
Derivative financial instruments	117	7,490	118	7,725
Liabilities related to transferred receivables	–	6,206	–	6,206
Other liabilities	–	43	–	43
	8,849	24,002	125	32,976

NOTE 3 – FAIR VALUE OF FINANCIAL INSTRUMENTS (cont.)

				As at October 31, 2015
	Level 1	Level 2	Level 3	Total financial assets/liabilities at fair value
Financial assets				
Securities				
At fair value through profit or loss				
Securities issued or guaranteed by				
Canadian government	1,969	6,647	–	8,616
Canadian provincial and municipal governments	–	11,148	–	11,148
U.S. Treasury, other U.S. agencies and other foreign governments	326	866	–	1,192
Other debt securities	–	3,264	–	3,264
Equity securities	17,145	611	21	17,777
	19,440	22,536	21	41,997
Available-for-sale				
Securities issued or guaranteed by				
Canadian government	283	6,184	–	6,467
Canadian provincial and municipal governments	–	5,104	–	5,104
U.S. Treasury, other U.S. agencies and other foreign governments	904	25	–	929
Other debt securities	–	913	30	943
Equity securities	225	144	231	600
	1,412	12,370	261	14,043
Securities purchased under reverse repurchase agreements and securities borrowed	–	295	–	295
Loans and acceptances	–	4,565	–	4,565
Other				
Derivative financial instruments	95	10,730	17	10,842
	20,947	50,496	299	71,742
Financial liabilities				
Deposits	–	3,184	20	3,204
Other				
Obligations related to securities sold short	11,456	5,877	–	17,333
Derivative financial instruments	42	7,659	55	7,756
Liabilities related to transferred receivables	–	6,402	–	6,402
Other liabilities	–	50	–	50
	11,498	23,172	75	34,745

Financial Instruments Classified in Level 3

The Bank classifies financial instruments in Level 3 when the valuation technique is based on at least one significant input that is not observable in the markets. The valuation technique may also be based, in part, on observable market inputs. The following table shows the significant unobservable inputs used for the fair value measurements of financial instruments classified in Level 3 of the hierarchy.

				As at October 31, 2016	
	Fair value	Primary valuation techniques	Significant unobservable inputs	Range of input values	
				Low	High
Financial assets					
Securities					
Other restructured notes of the MAV I and MAV II conduits	6	Net asset value	Net asset value	100 %	100 %
Equity securities and other debt securities	317	Net asset value	Net asset value	100 %	100 %
		Market comparable	EV/EBITDA[1] multiple	11 x	14 x
		Price-based model	Price equivalent	71 %	121 %
Other					
Derivative financial instruments					
Interest rate contracts	2	Discounted cash flows	Discount rate	2.20 %	2.20 %
Equity contracts	131	Option pricing model	Long-term volatility	10 %	25 %
			Market correlation	(56) %	(56) %
	456				
Financial liabilities					
Deposits					
Structured deposit notes	7	Option pricing model	Long-term volatility	10 %	55 %
			Market correlation	(33) %	87 %
Other					
Derivative financial instruments					
Equity contracts	118	Option pricing model	Long-term volatility	10 %	54 %
			Market correlation	(56) %	87 %
	125				

				As at October 31, 2015	
	Fair value	Primary valuation techniques	Significant unobservable inputs	Range of input values	
				Low	High
Financial assets					
Securities					
Other restructured notes of the MAV I and MAV II conduits	7	Net asset value	Net asset value	100 %	100 %
Equity securities and other debt securities	275	Discounted cash flows	Credit spread	425 Bps[2]	445 Bps[2]
		Net asset value	Net asset value	100 %	100 %
		Market comparable	EV/EBITDA[1] multiple	4.2 x	13 x
		Price-based model	Price equivalent	80 %	95 %
Other					
Derivative financial instruments					
Interest rate contracts	2	Discounted cash flows	Discount rate	2.20 %	2.20 %
Equity contracts	15	Option pricing model	Long-term volatility	9 %	49 %
			Market correlation	(50) %	77 %
	299				
Financial liabilities					
Deposits					
Structured deposit notes	20	Option pricing model	Long-term volatility	10 %	59 %
			Market correlation	(51) %	85 %
Other					
Derivative financial instruments					
Equity contracts	55	Option pricing model	Long-term volatility	9 %	67 %
			Market correlation	(50) %	85 %
	75				

(1) EV/EBITDA means Enterprise Value/Earnings Before Interest, Taxes, Depreciation and Amortization.
(2) Bps or basis point is a unit of measure equal to 0.01%.

NOTE 3 – FAIR VALUE OF FINANCIAL INSTRUMENTS (cont.)

Significant Unobservable Inputs Used for Fair Value Measurements of Financial Instruments Classified in Level 3

Net Asset Value

Net asset value is the estimated value of a security based on valuations received from the investment or fund managers, the administrators of the conduits or the general partners of the limited partnerships. The net asset value of a fund is the total fair value of assets less liabilities.

EV/EBITDA (Enterprise Value/Earnings Before Interest, Taxes, Depreciation and Amortization) Multiple and Price Equivalent

Private equity valuation inputs include earnings multiples, which are determined based on comparable companies, and a higher multiple will translate into a higher fair value. Price equivalent is a percentage of the market price based on the liquidity of the security.

Discount Rate

When discounted cash flow methods are used, the discount rate is the input used to bring future cash flows to their present value. A higher discount rate will translate into a lower fair value.

Long-Term Volatility

Volatility is a measure of the expected future variability of market prices. Volatility is generally observable in the market through options prices. However, the long-term volatility of options with a longer maturity might not be observable. An increase (decrease) in long-term volatility is generally associated with an increase (decrease) in long-term correlation. Higher long-term volatility may increase or decrease an instrument's fair value depending on its terms.

Market Correlation

Correlation is a measure of the inter-relationship between two different variables. A positive correlation means that the variables tend to move in the same direction; a negative correlation means that the variables tend to move in opposite directions. Correlation is used to measure financial instruments whose future returns depend on several variables. Changes in correlation will either increase or decrease a financial instrument's fair value depending on the terms of its contractual payout.

Credit Spread

Credit spread is the difference between a benchmark interest rate and the interest rate required by market participants to accept the lower credit quality of the measured financial asset. The interest rate on certain government bonds with a high credit rating and a maturity similar to the measured asset can often be considered a benchmark interest rate. An increase (decrease) in this unobservable input generally results in a decrease (increase) in fair value.

Sensitivity Analysis of Financial Instruments Classified in Level 3

The Bank performs sensitivity analyses for the fair value measurements of financial instruments classified in Level 3, substituting unobservable inputs with one or more reasonably possible alternative assumptions.

For the other restructured notes of the MAV I and MAV II conduits classified in Level 3, the most significant input used to determine fair value is net asset value. As at October 31, 2016 and 2015, the Bank varied the values used within a range that could result in a less than $1 million increase or decrease in fair value.

For equity securities and other debt securities, the Bank varies significant unobservable inputs such as net asset values, credit spreads, or EV/EBITDA multiples and price equivalents, and establishes a reasonable fair value range that could result in a $40 million increase or decrease in the fair value recorded as at October 31, 2016 (a $36 million increase or decrease as at October 31, 2015).

For derivative financial instruments and embedded derivatives related to structured deposit notes, the Bank varies long-term volatility and market correlation inputs and establishes a reasonable fair value range. As at October 31, 2016, for derivative financial instruments, the net fair value could result in a $7 million increase or decrease ($11 million increase or decrease as at October 31, 2015), whereas for structured deposit notes, the fair value could result in a $1 million increase or decrease ($4 million increase or decrease as at October 31, 2015).

Change in the Fair Value of Financial Instruments Classified in Level 3

The Bank may hedge the fair value of financial instruments classified in the various levels through offsetting hedge positions. Gains and losses for financial instruments classified in Level 3 presented in the following tables do not reflect the inverse gains and losses on financial instruments used for economic hedging purposes that may have been classified in Level 1 or 2 by the Bank. In addition, the Bank may hedge the fair value of financial instruments classified in Level 3 using other financial instruments classified in Level 3. The effect of these hedges is not included in the net amount presented in the following tables. The gains and losses presented hereafter may comprise changes in fair value based on observable and unobservable inputs.

				Year ended October 31, 2016
	Securities at fair value through profit or loss	Available-for-sale securities	Derivative financial instruments[(1)]	Deposits
Fair value as at October 31, 2015	21	261	(38)	(20)
Total realized and unrealized gains (losses) included in *Net income*[(2)]	(1)	8	(31)	9
Total realized and unrealized gains (losses) included in *Other comprehensive income*	–	14	–	–
Purchases	18	42	–	–
Sales	(26)	(13)	–	–
Issuances	–	–	–	(13)
Settlements and other	–	(8)	20	3
Financial instruments transferred into Level 3	6	1	67	(32)
Financial instruments transferred out of Level 3	–	–	(3)	46
Fair value as at October 31, 2016	18	305	15	(7)
Change in unrealized gains and losses included in *Net income* with respect to financial assets and financial liabilities held as at October 31, 2016[(3)]	(1)	–	(31)	9

				Year ended October 31, 2015
	Securities at fair value through profit or loss	Available-for-sale securities	Derivative financial instruments[(1)]	Deposits
Fair value as at October 31, 2014	1,223	237	(39)	(81)
Total realized and unrealized gains (losses) included in *Net income*[(4)]	56	62	(5)	(5)
Total realized and unrealized gains (losses) included in *Other comprehensive income*	–	(25)	–	–
Purchases	3	85	–	–
Sales	(43)	(99)	–	–
Issuances	–	–	–	(20)
Settlements and other	(587)	(5)	3	–
Financial instruments transferred into Level 3	–	6	(6)	(10)
Financial instruments transferred out of Level 3	(631)	–	9	96
Fair value as at October 31, 2015	21	261	(38)	(20)
Change in unrealized gains and losses included in *Net income* with respect to financial assets and financial liabilities held as at October 31, 2015[(5)]	1	–	(5)	(5)

(1) The derivative financial instruments include assets and liabilities presented on a net basis.
(2) Total net losses included in *Non-interest income* was $15 million.
(3) Total unrealized losses included in *Non-interest income* was $23 million.
(4) Total net gains included in *Non-interest income* was $108 million.
(5) Total unrealized losses included in *Non-interest income* was $9 million.

NOTE 3 – FAIR VALUE OF FINANCIAL INSTRUMENTS (cont.)

Financial Instruments Not Recorded at Fair Value on the Consolidated Balance Sheet

The following tables show the financial instruments that have not been recorded at fair value on the Consolidated Balance Sheet according to the fair value hierarchy, except for those whose carrying value is a reasonable approximation of fair value.

				As at October 31, 2016
	Level 1	**Level 2**	**Level 3**	**Total**
Financial assets				
Held-to-maturity securities				
Securities issued or guaranteed by				
Canadian government	–	2,652	–	2,652
Canadian provincial and municipal governments	–	548	–	548
Other debt securities	–	793	–	793
	–	3,993	–	3,993
Loans	–	44,895	69,305	114,200
Financial liabilities				
Deposits	–	136,108	–	136,108
Other				
Liabilities related to transferred receivables	–	13,974	–	13,974
Other liabilities	–	1,359	–	1,359
Subordinated debt	–	1,013	–	1,013
	–	152,454	–	152,454

				As at October 31, 2015
	Level 1	Level 2	Level 3	Total
Financial assets				
Loans	–	36,947	65,060	102,007
Financial liabilities				
Deposits	–	126,096	–	126,096
Other				
Liabilities related to transferred receivables	–	13,427	–	13,427
Other liabilities	–	1,348	–	1,348
Subordinated debt	–	1,526	–	1,526
	–	142,397	–	142,397

NOTE 4 – FINANCIAL INSTRUMENTS DESIGNATED AT FAIR VALUE THROUGH PROFIT OR LOSS

The Bank chose to designate certain financial instruments at fair value through profit or loss according to the criteria presented in Note 1. Consistent with its risk management strategy and as permitted by the fair value option, when the designation eliminates or significantly reduces the measurement or recognition mismatch resulting from measuring financial assets and liabilities on different bases, the Bank designated at fair value through profit or loss certain securities, certain securities purchased under reverse repurchase agreements, and certain liabilities related to transferred receivables. The fair value of liabilities related to transferred receivables does not include credit risk, as the holders of these liabilities are not exposed to the Bank's credit risk.

The Bank also designated certain hybrid financial instruments with one or more embedded derivatives, such as restructured notes of the MAV conduits, certain deposits, and certain loans at fair value through profit or loss. There is no exposure to credit risk on the loans to the extent that they are fully collateralized.

To determine a change in fair value arising from a change in the credit risk of deposits designated at fair value through profit or loss, the Bank calculates, at the beginning of the period, the present value of the instrument's contractual cash flows using the following rates: first, using an observed discount rate for similar securities that reflects the Bank's credit spread and, then, using a rate that excludes the Bank's credit spread. The difference obtained between the two values is then compared to the difference obtained using the same rates at the end of the period.

Information about the financial assets and financial liabilities designated at fair value through profit or loss is provided in the following tables.

	Carrying value as at October 31, 2016	**Change in the total fair value (including the change in the fair value attributable to credit risk) for the year ended October 31, 2016**	**Change in fair value since the initial recognition of the instrument**
Financial assets designated at fair value through profit or loss			
Securities	**1,465**	**10**	**326**
Securities purchased under reverse repurchase agreements	**158**	**–**	**–**
Loans	**164**	**(14)**	**(27)**
	1,787	**(4)**	**299**
Financial liabilities designated at fair value through profit or loss			
Deposits[1][2]	**4,655**	**(132)**	**(81)**
Liabilities related to transferred receivables	**6,206**	**41**	**(207)**
	10,861	**(91)**	**(288)**

	Carrying value as at October 31, 2015	Change in the total fair value (including the change in the fair value attributable to credit risk) for the year ended October 31, 2015	Change in fair value since the initial recognition of the instrument
Financial assets designated at fair value through profit or loss			
Securities	2,244	66	347
Securities purchased under reverse repurchase agreements	295	–	–
Loans	152	(19)	(25)
	2,691	47	322
Financial liabilities designated at fair value through profit or loss			
Deposits[1][2]	3,053	100	–
Liabilities related to transferred receivables	6,402	(76)	(250)
	9,455	24	(250)

(1) For the year ended October 31, 2016, the change in the fair value of deposits designated at fair value through profit or loss attributable to credit risk resulted in a $75 million loss. After early prospective adoption of the own credit risk provisions set out in IFRS 9 – *Financial Instruments* on February 1, 2016, the Bank recognized a $90 million loss in *Other comprehensive income* for the period of February 1, 2016 to October 31, 2016 and a $15 million gain in *Net income* for the first quarter of fiscal 2016 ($30 million gain recorded in *Non-interest income* in the Consolidated Statement of Income for the year ended October 31, 2015).

(2) The amount at maturity that the Bank will be contractually required to pay to the holders of these deposits varies and will differ from the reporting date fair value.

NOTE 5 – OFFSETTING FINANCIAL ASSETS AND FINANCIAL LIABILITIES

Financial assets and liabilities are offset and the net amount is presented on the Consolidated Balance Sheet when the Bank has a legally enforceable right to set off the recognized amounts and intends to settle on a net basis or to realize the asset and settle the liability simultaneously.

Generally, over-the-counter financial derivatives subject to master netting arrangements of the International Swaps & Derivatives Association, Inc. or other similar agreements do not meet the netting criteria on the Consolidated Balance Sheet because the right of set-off is legally enforceable only in the event of default, insolvency or bankruptcy.

Generally, securities purchased under reverse repurchase agreements and securities borrowed as well as obligations related to securities sold under repurchase agreements and securities loaned, subject to master agreements, do not meet the netting criteria since they confer a right of set-off that is enforceable only in the event of default, insolvency or bankruptcy.

However, the above-mentioned transactions may be subject to contractual netting agreements concluded with clearing houses. If the netting criteria are met, these transactions are netted on the Consolidated Balance Sheet. In addition, as part of these transactions, the Bank may give or receive cash or other financial instruments used as collateral.

The following tables present information on financial assets and financial liabilities that are netted on the Consolidated Balance Sheet because they meet the netting criteria and on those that are not netted and are subject to an enforceable master netting arrangement or similar agreement.

						As at October 31, 2016
				Associated amounts not set off on the Consolidated Balance Sheet		
	Gross amounts recognized	Amounts set off on the Consolidated Balance Sheet	Net amounts reported on the Consolidated Balance Sheet	Financial instruments[1]	Financial assets received/pledged as collateral[2]	Net amounts
Financial assets						
Securities purchased under reverse repurchase agreements and securities borrowed	**25,115**	**11,167**	**13,948**	**1,843**	**12,035**	**70**
Derivative financial instruments	**12,521**	**2,105**	**10,416**	**4,743**	**3,390**	**2,283**
	37,636	**13,272**	**24,364**	**6,586**	**15,425**	**2,353**
Financial liabilities						
Obligations related to securities sold under repurchase agreements and securities loaned	**33,803**	**11,167**	**22,636**	**1,843**	**20,633**	**160**
Derivative financial instruments	**9,830**	**2,105**	**7,725**	**4,743**	**1,740**	**1,242**
	43,633	**13,272**	**30,361**	**6,586**	**22,373**	**1,402**

						As at October 31, 2015
				Associated amounts not set off on the Consolidated Balance Sheet		
	Gross amounts recognized	Amounts set off on the Consolidated Balance Sheet	Net amounts reported on the Consolidated Balance Sheet	Financial instruments[1]	Financial assets received/pledged as collateral[2]	Net amounts
Financial assets						
Securities purchased under reverse repurchase agreements and securities borrowed	24,997	7,295	17,702	704	16,955	43
Derivative financial instruments	12,400	1,558	10,842	5,110	2,818	2,914
	37,397	8,853	28,544	5,814	19,773	2,957
Financial liabilities						
Obligations related to securities sold under repurchase agreements and securities loaned	21,074	7,295	13,779	704	13,000	75
Derivative financial instruments	9,314	1,558	7,756	5,110	1,119	1,527
	30,388	8,853	21,535	5,814	14,119	1,602

(1) Carrying amount of financial instruments that are subject to a master netting agreement or similar agreement but that do not satisfy offsetting criteria.
(2) Excluding non-financial instruments collateral.

NOTE 6 – SECURITIES

Residual Contractual Maturities of Securities

As at October 31					2016	2015
	1 year or less	Over 1 year to 5 years	Over 5 years	No specified maturity	Total	Total
Securities at fair value through profit or loss						
Securities issued or guaranteed by						
Canadian government	1,138	4,683	1,367	–	7,188	8,616
Canadian provincial and municipal governments	427	6,651	3,469	–	10,547	11,148
U.S. Treasury, other U.S. agencies and other foreign governments	3,832	154	188	–	4,174	1,192
Other debt securities	1,148	1,169	617	–	2,934	3,264
Equity securities	11	7	–	21,103	21,121	17,777
	6,556	12,664	5,641	21,103	45,964	41,997
Available-for-sale securities						
Securities issued or guaranteed by						
Canadian government	226	5,225	830	–	6,281	6,467
Canadian provincial and municipal governments	12	1,041	3,943	–	4,996	5,104
U.S. Treasury, other U.S. agencies and other foreign governments	121	1,047	541	–	1,709	929
Other debt securities	180	532	266	–	978	943
Equity securities	19	73	–	552	644	600
	558	7,918	5,580	552	14,608	14,043
Held-to-maturity securities						
Securities issued or guaranteed by						
Canadian government	–	2,606	–	–	2,606	–
Canadian provincial and municipal governments	–	340	204	–	544	–
Other debt securities	472	347	–	–	819	–
	472	3,293	204	–	3,969	–

NOTE 6 – SECURITIES (cont.)

Gross Gains (Losses) on Available-for-Sale Securities

				As at October 31, 2016
	Amortized cost	**Gross unrealized gains**	**Gross unrealized losses**	**Carrying value**
Securities issued or guaranteed by				
Canadian government	**6,201**	**83**	**(3)**	**6,281**
Canadian provincial and municipal governments	**4,704**	**312**	**(20)**	**4,996**
U.S. Treasury, other U.S. agencies and other foreign governments	**1,702**	**11**	**(4)**	**1,709**
Other debt securities	**951**	**29**	**(2)**	**978**
Equity securities	**588**	**94**	**(38)**	**644**
	14,146	**529**	**(67)**	**14,608**

				As at October 31, 2015
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Carrying value
Securities issued or guaranteed by				
Canadian government	6,423	62	(18)	6,467
Canadian provincial and municipal governments	4,889	246	(31)	5,104
U.S. Treasury, other U.S. agencies and other foreign governments	929	2	(2)	929
Other debt securities	937	15	(9)	943
Equity securities	569	78	(47)	600
	13,747	403	(107)	14,043

Impairment Losses Recognized

At the end of each financial reporting period, the Bank determines whether there is objective evidence of impairment for each available-for-sale security. During the year ended October 31, 2016, an amount of $9 million ($26 million for the year ended October 31, 2015) for impairment charges was recognized in *Gains (losses) on available-for-sale securities, net* in the Consolidated Statement of Income. In addition, during the years ended October 31, 2016 and 2015, no amounts were reversed in the Consolidated Statement of Income to recognize subsequent increases in the fair value of previously impaired debt securities.

Gross Unrealized Losses

As at October 31, 2016 and 2015, the Bank concluded that the gross unrealized losses on available-for-sale securities were mainly due to market price fluctuations and to changes in foreign exchange rates and that there is no objective evidence of impairment requiring an impairment charge to be recognized in the Consolidated Statement of Income.

Held-to-Maturity Securities

At the end of each financial reporting period, the Bank determines whether there is objective evidence of impairment for each held-to-maturity security. As at October 31, 2016, there was no objective evidence of impairment on held-to-maturity securities.

Master Asset Vehicles

As at October 31, 2016, the carrying value of the restructured notes of the MAV conduits and of the other restructured notes held by the Bank was $619 million ($655 million as at October 31, 2015), of which $613 million was designated as *Securities at fair value through profit or loss* under the fair value option, and an amount of $6 million was classified in *Available-for-sale securities* ($642 million designated as *Securities at fair value through profit or loss* and $13 million classified in *Available-for-sale securities* as at October 31,2015). The notes held in an investment portfolio with one or more embedded derivatives were designated as *Securities at fair value through profit or loss* under the fair value option, and the other notes were classified in *Available-for-sale-securities*.

During the fiscal year ended October 31, 2016, the credit rating of the MAV I Class B notes was upgraded from “A (sf)” to “A (high) (sf).” The credit rating of the MAV I Class A-2 and the MAV II Class A-1 notes remained unchanged at “AA (low) (sf).” The credit rating of the MAV II Class A-2 notes also remained unchanged at “A (sf).”

NOTE 7 – LOANS

Credit Quality

				As at October 31, 2016
	Residential mortgage	**Personal and credit card**	**Business and government**[1][2]	**Total**
Neither past due[3] nor impaired	**48,552**	**33,591**	**43,673**	**125,816**
Past due[3] but not impaired	**245**	**294**	**112**	**651**
Impaired	**71**	**79**	**342**	**492**
Gross loans	**48,868**	**33,964**	**44,127**	**126,959**
Less: Allowances on impaired loans				
Individual allowances	**13**	**20**	**156**	**189**
Collective allowances	**–**	**19**	**3**	**22**
Allowances on impaired loans	**13**	**39**	**159**	**211**
	48,855	**33,925**	**43,968**	**126,748**
Less:				
Sectoral allowance on non-impaired loans – Oil and gas[4]				**204**
Collective allowance on non-impaired loans[5]				**366**
				570
Loans and acceptances, net of allowances				**126,178**

				As at October 31, 2015
	Residential mortgage	Personal and credit card	Business and government[1][2]	Total
Neither past due[3] nor impaired	43,184	31,556	39,953	114,693
Past due[3] but not impaired	266	295	96	657
Impaired	70	82	305	457
Gross loans	43,520	31,933	40,354	115,807
Less: Allowances on impaired loans				
Individual allowances	10	18	151	179
Collective allowances	–	22	2	24
Allowances on impaired loans	10	40	153	203
	43,510	31,893	40,201	115,604
Less: Collective allowance on non-impaired loans[5]				366
Loans and acceptances, net of allowances				115,238

(1) Business credit portfolios are closely monitored and a monthly watchlist of problem commitments is produced. The watchlist is analyzed by the loan portfolio managers concerned, who must then submit a report to Credit Risk Management.
(2) Includes customers' liability under acceptances.
(3) A loan is past due when the counterparty has not made a payment by the contractual due date.
(4) The sectoral allowance on non-impaired loans was established collectively for the portfolio of loans to producers and service companies in the oil and gas sector.
(5) The collective allowance for credit risk on non-impaired loans was established taking into account the Bank's overall credit portfolio, except for loans covered by the sectoral allowance.

NOTE 7 – LOANS (cont.)

Loans Past Due But Not Impaired[1]

As at October 31	2016			2015		
	Residential mortgage	Personal and credit card	Business and government[2]	Residential mortgage	Personal and credit card	Business and government[2]
Past due but not impaired						
31 to 60 days	115	112	51	120	109	36
61 to 90 days	48	36	9	54	38	26
90 days and greater	82	146	52	92	148	34
	245	294	112	266	295	96

(1) Loans less than 31 days past due are not presented as they are not considered past due from an administrative standpoint.
(2) As at October 31, 2016, the fair value of financial collateral held against loans past due but not impaired was $10 million ($16 million as at October 31, 2015).

Impaired Loans

	As at October 31, 2016			
	Gross	Individual allowances	Collective allowances	Net
Loans				
Residential mortgage	71	13	–	58
Personal and credit card	79	20	19	40
Business and government[1]	342	156	3	183
	492	189	22	281

	As at October 31, 2015			
	Gross	Individual allowances	Collective allowances	Net
Loans				
Residential mortgage	70	10	–	60
Personal and credit card	82	18	22	42
Business and government[1]	305	151	2	152
	457	179	24	254

(1) Includes customers' liability under acceptances.

Allowances for Credit Losses

	Year ended October 31, 2016						
	Balance at beginning	**Provisions for credit losses**	**Write-offs**	**Write-offs on credit cards**	**Recoveries and other[1]**	**Transfers[2]**	**Balance at end**
Allowances on impaired loans							
Residential mortgage							
Individual allowances	10	12	(11)	–	2	–	13
Collective allowances	–	–	–	–	–	–	–
Personal and credit card							
Individual allowances	18	123	(41)	(81)	1	–	20
Collective allowances	22	28	(39)	–	8	–	19
Business and government[3]							
Individual allowances	151	67	(107)	–	(1)	46	156
Collective allowances	2	4	(3)	–	–	–	3
Individual allowances	179	202	(159)	(81)	2	46	189
Collective allowances	24	32	(42)	–	8	–	22
	203	234	(201)	(81)	10	46	211
Sectoral allowance on non-impaired loans – Oil and gas[4]	–	250	–	–	–	(46)	204
Collective allowance on non-impaired loans[5]	366	–	–	–	–	–	366
	366	250	–	–	–	(46)	570
	569	484	(201)	(81)	10	–	781

	Year ended October 31, 2015						
	Balance at beginning	Provisions for credit losses	Write-offs	Write-offs on credit cards	Recoveries and other[1]	Transfers[2]	Balance at end
Allowances on impaired loans							
Residential mortgage							
Individual allowances	9	10	(9)	–	–	–	10
Collective allowances	–	–	–	–	–	–	–
Personal and credit card							
Individual allowances	15	121	(38)	(81)	1	–	18
Collective allowances	21	35	(40)	–	6	–	22
Business and government[3]							
Individual allowances	191	60	(108)	–	8	–	151
Collective allowances	2	2	(2)	–	–	–	2
Individual allowances	215	191	(155)	(81)	9	–	179
Collective allowances	23	37	(42)	–	6	–	24
	238	228	(197)	(81)	15	–	203
Collective allowance on non-impaired loans[5]	366	–	–	–	–	–	366
	604	228	(197)	(81)	15	–	569

(1) Includes foreign exchange movements.
(2) When a loan covered by the *Sectoral allowance on non-impaired loans – Oil and gas* becomes impaired, the sectoral allowance related to that loan is transferred to the individual allowances on impaired loans.
(3) Includes customers' liability under acceptances.
(4) The sectoral allowance on non-impaired loans was established collectively for the portfolio of loans to producers and service companies in the oil and gas sector.
(5) The collective allowance for credit risk on non-impaired loans was established taking into account the Bank's overall credit portfolio, except for loans covered by the sectoral allowance.

NOTE 7 – LOANS (cont.)

Distribution of Gross and Impaired Loans by Borrower Category Under the Basel Asset Classes

					2016
			As at October 31		Year ended October 31
	Gross loans[1]	Impaired loans[1]	Allowances on impaired loans[1]	Provisions for credit losses	Write-offs
Retail					
Residential mortgage[2]	58,265	76	13	11	11
Qualifying revolving retail[3]	4,178	18	10	105	108
Other retail[4]	10,316	49	28	45	53
	72,759	143	51	161	172
Non-retail[1]					
Agriculture	4,599	16	6	–	3
Oil and gas	2,102	178	66	284	66
Mining	582	–	–	–	–
Construction and real estate[5]	10,729	19	9	5	2
Manufacturing	3,597	25	21	8	6
Wholesale and retail	4,932	34	17	12	23
Transportation	3,013	6	4	3	5
Telecommunications, media and technology	1,578	23	9	4	–
Financial institutions	3,872	–	–	–	–
Services	6,021	22	8	4	4
Governments and other related services	5,638	18	12	–	–
Other	7,537	8	8	3	1
	54,200	349	160	323	110
	126,959	492	211	484	282

					2015
			As at October 31		Year ended October 31
	Gross loans[1]	Impaired loans[1]	Allowances on impaired loans[1]	Provisions for credit losses	Write-offs
Retail					
Residential mortgage[2]	54,004	77	10	11	9
Qualifying revolving retail[3]	4,093	19	11	107	108
Other retail[4]	9,512	51	28	49	51
	67,609	147	49	167	168
Non-retail[1]					
Agriculture	4,433	29	9	3	2
Oil and gas	3,220	62	46	36	27
Mining	392	–	–	–	–
Construction and real estate[5]	10,439	40	5	(3)	4
Manufacturing	3,765	28	20	3	30
Wholesale and retail	4,873	74	36	16	14
Transportation	1,956	10	4	–	–
Telecommunications, media and technology	1,254	23	6	2	–
Financial institutions	2,679	1	–	–	–
Services	5,414	17	7	1	28
Governments and other related services	4,447	18	13	3	–
Other	5,326	8	8	–	5
	48,198	310	154	61	110
	115,807	457	203	228	278

(1) Includes customers' liability under acceptances.
(2) Includes residential mortgages on one-to-four-unit dwellings (Basel definition) and home equity lines of credit.
(3) Includes lines of credit and credit card receivables.
(4) Includes consumer loans and other retail loans but excludes SME loans.
(5) Includes non-residential mortgages.

NOTE 8 – FINANCIAL ASSETS TRANSFERRED BUT NOT DERECOGNIZED

In the normal course of its business, the Bank enters into transactions in which it transfers financial assets such as securities or loans directly to third parties, in particular structured entities. According to the terms of some of those transactions, the Bank retains substantially all of the risks and rewards related to those financial assets. The risks include credit risk, interest rate risk, foreign exchange risk, prepayment risk and other price risks, whereas the rewards include income streams associated with the financial assets. As such, those financial assets are not derecognized and the transactions are treated as collateralized or secured borrowings. The nature of those transactions is described below.

Securities Sold Under Repurchase Agreements and Securities Loaned

When securities are sold under repurchase agreements and securities loaned under securities lending agreements, the Bank transfers financial assets to third parties in accordance with the standard terms for such transactions. These third parties may have an unlimited right to resell or repledge the financial assets received. If cash collateral is received, the Bank records the cash along with an obligation to return the cash, which is included in *Obligations related to securities sold under repurchase agreements and securities loaned* on the Consolidated Balance Sheet. Where securities are received as collateral, the Bank does not record the collateral on the Consolidated Balance Sheet.

Financial Assets Transferred to Structured Entities

Under the Canada Mortgage Bond (CMB) program, the Bank sells securities backed by insured residential mortgages and other securities to Canada Housing Trust (CHT), which finances the purchase through the issuance of insured mortgage bonds. Third-party CMB investors have legal recourse only to the transferred assets. The cash received for these transferred assets is treated as a secured borrowing, and a corresponding liability is recorded in *Liabilities related to transferred receivables* on the Consolidated Balance Sheet.

The following table provides additional information about the nature of the transferred financial assets that do not qualify for derecognition and the associated liabilities.

As at October 31	2016	2015
Carrying value of financial assets transferred but not derecognized		
Securities(1)	39,989	32,902
Residential mortgages	19,093	17,732
	59,082	50,634
Carrying value of associated liabilities(2)	34,992	26,820
Fair value of financial assets transferred but not derecognized		
Securities(1)	39,989	32,902
Residential mortgages	19,403	18,032
	59,392	50,934
Fair value of associated liabilities(2)	35,041	26,879

(1) The amount related to the securities loaned is the maximum amount of Bank securities that can be lent. For the obligations related to securities sold under repurchase agreements, the amount includes the Bank's own financial assets as well as those of third parties.

(2) Associated liabilities include obligations related to securities sold under repurchase agreements before the offsetting impact of $3,521 million as at October 31, 2016 ($1,411 million as at October 31, 2015) and liabilities related to transferred receivables. Liabilities related to securities loaned are not included, as the Bank can lend its own financial assets and those of third parties. The carrying value and fair value of liabilities related to securities loaned were $11,296 million as at October 31, 2016 ($8,140 million as at October 31, 2015).

The following table specifies the nature of the transactions related to financial assets transferred but not derecognized.

As at October 31	2016	2015
Carrying value of financial assets transferred but not derecognized		
Securities backed by insured residential mortgages and other securities sold to CHT	20,030	18,958
Securities sold under repurchase agreements	14,615	7,148
Securities loaned	24,437	24,526
Residential mortgages transferred to a mutual fund	–	2
	59,082	50,634

NOTE 9 – INVESTMENTS IN ASSOCIATES AND JOINT VENTURES

As at October 31			2016	2015
	Business segment	Ownership percentage	Carrying value	Carrying value
Listed associates[1]				
TMX Group Limited[2]	Other	8.6 %	231	240
Fiera Capital Corporation[3]	Wealth Management	20.9 %	154	149
Unlisted associates				
Maple Financial Group Inc.[4]	Financial Markets	24.9 %	–	160
Other[5]			230	248
Unlisted joint ventures			30	34
			645	831

(1) The fair value of investments in associates based on quoted prices in an active market was $497 million as at October 31, 2016 ($399 million as at October 31, 2015).
(2) The Bank exercises significant influence over TMX Group Limited mainly because of its equity interest, debt financing, and presence on TMX Group's board of directors.
(3) During fiscal 2015, the Bank disposed of a portion of its equity interest in Fiera Capital Corporation. For additional information, see Note 33.
(4) During fiscal 2016, the Bank wrote off the carrying value of its equity interest in Maple Financial Group Inc. in an amount of $164 million. For additional information, see the text below.
(5) During the fiscal year ended October 31, 2016, the Bank completed the acquisition of Advanced Bank of Asia Limited (ABA). As at October 31, 2015, the Bank had held an equity interest in this entity. For additional information, see Note 33. During fiscal 2015, the Bank had acquired an equity interest in NSIA Participations (NSIA), a financial group headquartered in Abidjan, Côte d'Ivoire. Through this transaction, the Bank and Amethis Africa Finance (Amethis Finance) acquired the interest held by ECP Africa Fund III PCC in NSIA. The Bank has a 20.9% interest in NSIA, while that of Amethis Finance is 5.4%, and the Bank's purchase price was $116 million. The Bank has accounted for this investment using the equity method since the acquisition date.

As at October 31, 2016 and 2015, there were no significant restrictions limiting the ability of associates and joint ventures to transfer funds to the Bank in the form of dividends or to repay any loans or advances. Furthermore, the Bank has not made any specific commitment or contracted any contingent liability with respect to associates or joint ventures.

TMX Group Limited

TMX Group Limited is a Canadian corporation that directly or indirectly controls a number of entities that operate stock exchanges and clearing houses and provide clearing and settlement services. During the year ended October 31, 2016, TMX Group Limited paid $8 million in dividends to the Bank ($8 million for the year ended October 31, 2015).

Fiera Capital Corporation

Fiera Capital Corporation is an independent Canadian investment management firm. During the year ended October 31, 2016, Fiera Capital Corporation paid $10 million in dividends to the Bank ($9 million for the year ended October 31, 2015).

Maple Financial Group Inc.

Maple Financial Group Inc. (Maple) is a privately owned Canadian company that operated through direct and indirect wholly owned subsidiaries in Canada, Germany, the United Kingdom and the United States. The Bank has a 24.9% equity interest in that company. In August 2016, Maple filed for bankruptcy under the applicable Canadian laws, and a receiver was appointed to administer the company. Similar proceedings have been initiated for each of Maple's other material subsidiaries in their home jurisdictions.

Maple Bank GmbH, an indirect wholly owned subsidiary of Maple, has been the subject of an investigation into alleged tax irregularities by German prosecutors since September 2015 and that, to the Bank's knowledge, is ongoing. The Bank understands that the investigation is focusing on selected trading activities by Maple Bank GmbH and some of its current and former employees during taxation years 2006 to 2010. The German authorities have alleged that these trading activities violated German tax laws. Neither the Bank nor its employees were involved in these trading activities and, to the Bank's knowledge, are not the subject of this investigation.

On February 6, 2016, the German Federal Financial Supervisory Authority, BaFin, placed a moratorium on the business activities of Maple Bank GmbH, preventing it from carrying out its normal business activities. In light of the situation, the Bank wrote off the carrying value of its equity interest in Maple in an amount of $164 million ($145 million net of income taxes) during the first quarter of 2016. The $164 million write-off of the equity interest in this associate was recognized in the *Non-interest income – Other* item of the Consolidated Statement of Income for the year ended October 31, 2016 and is reported in the Financial Markets segment.

The Bank has advised the German authorities that if it is determined that portions of dividends received from Maple could be reasonably attributable to tax fraud by Maple Bank GmbH, arrangements will be made to repay those amounts to the relevant authority. If any repayments are required, they are not expected to be material to the Bank's financial position.

The following table provides summarized financial information on the Bank's listed associates.

As at October 31			2016	2015
	TMX Group Limited[1]	Fiera Capital Corporation[1]	Total	Total
Balance sheet				
Current assets	18,830	104	18,934	14,246
Non-current assets	4,546	906	5,452	5,469
Current liabilities	18,930	56	18,986	14,097
Non-current liabilities	1,560	415	1,975	2,177
Income statement				
Total revenues	730	297	1,027	940
Net income	(32)	22	(10)	173
Other comprehensive income (loss)	3	(2)	1	26
Comprehensive (loss) income	(29)	20	(9)	199

(1) The balance sheet amounts are the balances reported in the unaudited financial statements as at September 30, 2016 and 2015, which are the most recent available, and the income statement amounts are based on the cumulative balances for the 12-month periods ended September 30, 2016 and 2015.

The table below provides summarized financial information related to the Bank's share of associates and joint ventures that are not individually significant.

Year ended October 31			2016[1]	2015[1]
	Unlisted associates	Unlisted joint ventures	Total	Total
Net income	9	2	11	1
Other comprehensive income	–	–	–	–
Comprehensive income	9	2	11	1

(1) The amounts are based on the cumulative balances for the 12-month periods ended September 30, 2016 and 2015.

NOTE 10 – PREMISES AND EQUIPMENT

	Land	Buildings	Computer equipment	Equipment and furniture	Leasehold improvements	Total
Cost						
As at October 31, 2014	14	254	232	349	582	1,431
Acquisitions	–	2	65	1,597	21	1,685
Disposals	–	–	(2)	(58)	(6)	(66)
As at October 31, 2015	14	256	295	1,888	597	3,050
Acquisitions	**–**	**4**	**115**	**24**	**37**	**180**
Disposals	**–**	**(1)**	**(21)**	**(566)**	**(6)**	**(594)**
As at October 31, 2016	**14**	**259**	**389**	**1,346**	**628**	**2,636**
Accumulated amortization						
As at October 31, 2014		150	172	299	430	1,051
Amortization for the year		5	38	125	25	193
Disposals		–	(1)	(5)	(5)	(11)
As at October 31, 2015		155	209	419	450	1,233
Amortization for the year		**5**	**42**	**203**	**23**	**273**
Disposals		**(1)**	**(13)**	**(191)**	**(3)**	**(208)**
As at October 31, 2016		**159**	**238**	**431**	**470**	**1,298**
Carrying value as at October 31, 2015	14	101	86	1,469	147	1,817
Carrying value as at October 31, 2016	**14**	**100**	**151**	**915**	**158**	**1,338**

Assets Leased Under Operating Leases

The Bank is a lessor under operating lease agreements for certain buildings. Through one of its subsidiaries, the Bank is also a lessor for equipment leased under operating leases. Upon expiry of a lease, the Bank disposes of the equipment. These leases have terms varying from one year to five years and do not contain any bargain purchase options or contingent rent.

The following table breaks down the future minimum payments receivable under these operating leases.

	As at October 31, 2016
1 year or less	**925**
Over 1 year to 5 years	**626**
Over 5 years	**15**
	1,566

NOTE 11 – GOODWILL AND INTANGIBLE ASSETS

Goodwill

The following table presents the change in the carrying amount of goodwill by cash-generating unit (CGU) and by business segment for the years ended October 31, 2016 and 2015.

	Personal and Commercial[1]	Wealth Management				Financial Markets[1]	Other	Total
		Third-Party Solutions[1]	Securities Brokerage[1]	Managed Solutions[1]	Total		Advanced Bank of Asia Limited[1]	
Balance as at October 31, 2014	51	256	434	269	959	262	–	1,272
Impact of foreign currency translation	–	–	–	–	–	5	–	5
Balance as at October 31, 2015	51	256	434	269	959	267	–	1,277
Acquisition of Advanced Bank of Asia Limited (Note 33)	–	–	–	–	–	–	129	129
Impact of foreign currency translation	–	–	–	–	–	1	5	6
Balance as at October 31, 2016	**51**	**256**	**434**	**269**	**959**	**268**	**134**	**1,412**

(1) Constitutes a CGU.

Goodwill Impairment Testing and Significant Assumptions
For impairment testing purposes, from the acquisition date, goodwill resulting from a business combination must be allocated to a CGU or a group of CGUs expected to benefit from the synergies of the business combination. Goodwill is tested for impairment annually or more frequently if events or circumstances indicate that the recoverable value of the CGU or group of CGUs may have fallen below its carrying amount.

Goodwill was tested for impairment during the years ended October 31, 2016 and 2015, and no impairment loss was recognized.

The recoverable value of a CGU or group of CGUs is based on the value in use that is calculated based on discounted pre-tax cash flows. Future pre-tax cash flows are estimated based on a five-year period, which is the reference period used for the most recent financial forecasts approved by management. Cash flows beyond that period are extrapolated using a long-term growth rate.

The discount rate used for each CGU or group of CGUs is calculated using the cost of debt financing and cost related to the Bank's equity. This rate corresponds to the Bank's weighted average cost of capital and reflects the risk specific to the CGU. The long-term growth rate used in calculating discounted cash flow estimates is based on the forecasted growth rate plus a risk premium. The rate is constant over the entire five-year period for which the cash flows were determined. Growth rates are determined, among other factors, based on past growth rates, economic trends, inflation, competition and the impact of the Bank's strategic initiatives. As at October 31, 2016, for each CGU or CGU group, the discount rate used was 12.3% (12.5% as at October 31, 2015) and the long-term growth rate was between 2.0% and 5.0% depending on the CGU (between 2.0% and 4.0% as at October 31, 2015) .

Estimating a CGU's value in use requires significant judgment regarding the inputs used in applying the discounted cash flow method. The Bank conducts sensitivity analyses by varying the after-tax discount rate and the terminal growth rates upward by 1%; such sensitivity analyses would not increase a CGU's carrying value above its value in use.

NOTE 11 – GOODWILL AND INTANGIBLE ASSETS (cont.)

Intangible Assets

	Indefinite useful life			Finite useful life				Total
	Management contracts[1]	Trademark	Total	Internally-generated technological developments[2]	Software	Other intangible assets	Total	
Cost								
As at October 31, 2014	161	11	172	1,059	207	106	1,372	1,544
Acquisitions	–	–	–	183	31	1	215	215
Impairment losses[3]	–	–	–	(46)	–	–	(46)	(46)
As at October 31, 2015	161	11	172	1,196	238	107	1,541	1,713
Acquisitions	–	–	–	234	36	–	270	270
Impairment losses[3]	–	–	–	(69)	–	(1)	(70)	(70)
As at October 31, 2016	**161**	**11**	**172**	**1,361**	**274**	**106**	**1,741**	**1,913**
Accumulated amortization								
As at October 31, 2014				344	165	37	546	546
Amortization for the year				72	24	12	108	108
As at October 31, 2015				416	189	49	654	654
Amortization for the year				108	27	9	144	144
Impairment losses[3]				(25)	–	–	(25)	(25)
As at October 31, 2016				**499**	**216**	**58**	**773**	**773**
Carrying value as at October 31, 2015	161	11	172	780	49	58	887	1,059
Carrying value as at October 31, 2016	**161**	**11**	**172**	**862**	**58**	**48**	**968**	**1,140**

(1) For annual impairment testing purposes, management contracts are allocated to the Managed Solutions CGU.
(2) The remaining amortization period for significant internally-generated technology developments is five years.
(3) The Bank wrote off certain technology developments due to obsolescence and decided to discontinue them. The recoverable amount of those technology developments was estimated to be nil. During the year ended October 31, 2016, $44 million in impairment losses ($46 million for the year ended October 31, 2015) was recognized and charged to the *Other* heading of segment disclosures.

NOTE 12 – OTHER ASSETS

As at October 31	2016	2015
Receivables, prepaid expenses and other items	668	690
Interest and dividends receivable	474	459
Defined benefit asset (Note 24)	48	268
Deferred tax assets (Note 25)	402	230
Current tax assets	80	192
Reinsurance assets	32	25
	1,704	1,864

NOTE 13 – DEPOSITS

As at October 31			2016	2015
	On demand or after notice[1]	Fixed term[2]	Total	Total
Personal	27,574	22,228	49,802	45,981
Business and government	37,299	45,857	83,156	74,441
Deposit-taking institutions	1,543	5,406	6,949	8,408
	66,416	73,491	139,907	128,830

(1) Demand deposits are deposits for which the Bank does not have the right to require notice of withdrawal and consist essentially of deposits in chequing accounts. Notice deposits are deposits for which the Bank may legally require notice of withdrawal and consist mainly of deposits in savings accounts.
(2) Fixed-term deposits are deposits that can be withdrawn by the holder on a specified date and include term deposits, guaranteed investment certificates, savings accounts and plans, covered bonds and similar instruments.

The *Deposits – Business and government* item includes, among other items, the covered bonds, as described below. As at October 31, 2015, this item had also included the $225 million deposit note from NBC Capital Trust.

Covered Bonds

NBC Covered Bond Guarantor (Legislative) Limited Partnership

In December 2013, the Bank established the covered bond legislative program under which covered bonds are issued. It therefore created NBC Covered Bond Guarantor (Legislative) Limited Partnership (the Guarantor) to guarantee payment of the principal and interest owed to the bondholders. The Bank sold uninsured residential mortgages to the Guarantor and granted it loans to facilitate the acquisition of these assets. During the year ended October 31, 2016, the Bank issued covered bonds under this program in amounts of 750 million euros and 100 million pounds sterling (covered bonds in amounts of US$750 million and 1.0 billion euros issued during the year ended October 31, 2015). The covered bonds, totalling $6.7 billion as at October 31, 2016 ($5.3 billion as at October 31, 2015) are presented in *Deposits – Business and government* on the Bank's Consolidated Balance Sheet. See Note 28 for additional information.

The Bank has limited access to the assets owned by this structured entity according to the terms of the agreements that apply to this transaction. The assets owned by this entity totalled $14.2 billion as at October 31, 2016 ($10.8 billion as at October 31, 2015), of which $13.9 billion ($10.6 billion as at October 31, 2015) is presented in *Residential mortgage* loans on the Bank's Consolidated Balance Sheet.

NBC Covered Bond Guarantor Limited Partnership

In January 2011, the Bank established the structured covered bond program. It therefore created NBC Covered Bond Guarantor Limited Partnership (the Guarantor) in order to guarantee payment of the principal and interest owed to the bondholders. The Bank sold insured residential mortgages to the Guarantor and granted it a demand loan to facilitate the acquisition of these assets. All of the covered bonds have matured since October 19, 2016, and no further covered bonds will be issued under this program. There were no covered bonds outstanding under this program as at October 31, 2016. As at October 31, 2015, covered bonds issued under this program and in an amount of $2.6 billion were presented in *Deposits – Business and government* on the Bank's Consolidated Balance Sheet. See Note 28 for additional information.

The Bank had limited access to the assets owned by this structured entity according to the terms of the agreements that apply to this transaction. The entity owns no more assets as at October 31, 2016 ($2.3 billion as at October 31, 2015, of which $2.1 billion was presented in *Residential mortgage* loans on the Bank's Consolidated Balance Sheet as at October 31, 2015).

Deposit from NBC Capital Trust

On June 15, 2006, NBC Capital Trust (the Trust), an open-end trust established under the laws of the Province of Ontario, issued 225,000 transferable non-voting trust units called Trust Capital Securities – Series 1 or NBC CapS – Series 1. The gross proceeds of $225 million from the offering were used by the Trust to acquire a deposit note from the Bank.

The Bank did not control the Trust and therefore did not consolidate it. See Note 28 for additional information. Consequently, the NBC CapS – Series 1 issued by the Trust were not included on the Bank's Consolidated Balance Sheet, but the deposit note was presented in *Deposits – Business and government.*

On June 30, 2016, the Trust redeemed the 225,000 Trust Capital Securities – Series 1, or NBC CapS – Series 1, issued and outstanding on June 30, 2016 at a redemption price of $1,000 per trust capital security plus the unpaid distributions as at the redemption date. Given that, after the redemption, holders of NBC CapS – Series 1 were no longer entitled to receive distributions or exercise any other rights, the authorized but not issued Series 17 and 18 First Preferred Shares were withdrawn from the Bank's authorized capital, and the Bank redeemed the $225 million deposit note from the Trust. The Trust was terminated on June 30, 2016.

NOTE 14 – OTHER LIABILITIES

As at October 31	2016	2015
Accounts payable and accrued expenses	**1,510**	1,334
Subsidiaries' debts to third parties	**1,447**	1,400
Interest and dividends payable	**832**	615
Defined benefit liability (Note 24)	**314**	183
Deferred tax liabilities (Note 25)	**57**	123
Current tax liabilities	**215**	82
Insurance liabilities	**71**	67
Other items(1)(2)	**900**	670
	5,346	4,474

(1) As at October 31, 2016, *Other items* included a $152 million restructuring provision ($67 million as at October 31, 2015). See Note 15 for additional information.
(2) As at October 31, 2016, *Other items* included an $18 million litigation provision ($15 million as at October 31, 2015).

NOTE 15 – RESTRUCTURING

During fiscal years 2016 and 2015, the Board approved certain restructuring initiatives to accelerate its transformation plan, satisfy the changing needs of its clients and enhance operational efficiency. This transformation will allow the Bank to maintain the pace of its client-centric shift, pursue the transition to digital banking, maintain a compelling workplace and focus on operational excellence.

During fiscal 2016, the Bank recorded a charge of $131 million ($86 million in fiscal 2015) to the *Restructuring charge* item of the Consolidated Statement of Income, consisting of severance pay and onerous contracts. The 2015 charge had also included professional fees. These restructuring charges are reported in the *Other* heading of the segment disclosures.

The table below presents the changes in the restructuring allowance on the Consolidated Balance Sheet.

	Severance pay	Other	Total
As at November 1, 2014	–	–	–
Restructuring charge	53	33	86
Payments during the year	(2)	(17)	(19)
As at October 31, 2015	51	16	67
Restructuring charge	**129**	**2**	**131**
Payments during the year	**(34)**	**(12)**	**(46)**
As at October 31, 2016	**146**	**6**	**152**

NOTE 16 – SUBORDINATED DEBT

The subordinated debt represents direct unsecured obligations, in the form of notes and debentures, to the Bank's debt holders. The rights of the Bank's note and debenture holders are subordinate to the claims of depositors and certain other creditors. Approval from OSFI is required before the Bank can redeem its subordinated notes and debentures in whole or in part.

On November 2, 2015, the Bank redeemed $500 million of notes maturing on November 2, 2020 at a price equal to their nominal value plus accrued interest.

As at October 31				2016	2015
Maturity date		**Interest rate**	**Characteristics**		
November	2020	4.70%	Redeemable	–	500
April	2022	3.261%(1)	Redeemable(2)	1,000	1,000
February	2087	Variable(3)	Redeemable at the Bank's option since February 28, 1993	9	9
				1,009	1,509
Fair value hedge adjustment				5	15
Unamortized issuance costs(4)				(2)	(2)
Total				**1,012**	1,522

(1) Bearing interest at a rate of 3.261% until April 11, 2017 and thereafter at a floating rate equal to the rate on three-month CDOR plus 1.38%.
(2) The Bank may, at its option, redeem all or any portion of the notes at nominal value plus unpaid accrued interest.
(3) Debentures denominated in foreign currency totalling US$7 million as at October 31, 2016 (2015: US$7 million) bearing interest at a rate of 1/8% above six-month LIBOR.
(4) The unamortized costs related to the issuance of the subordinated debt represent the initial cost, net of accumulated amortization calculated using the effective interest rate method.

NOTE 17 – DERIVATIVE FINANCIAL INSTRUMENTS

Derivative financial instruments are financial contracts whose value is derived from an underlying interest rate, exchange rate, or equity, commodity or credit instrument or index.

The main types of derivative financial instruments used are presented below.

Forwards and Futures

Forwards and futures are contractual obligations to buy or deliver a specified amount of currency, interest rate, commodity or financial instrument on a specified future date at a specified price. Forwards are tailor-made agreements transacted in the over-the-counter market. Futures are traded on organized exchanges and are subject to cash margining calculated daily by clearing houses.

Swaps

Swaps are over-the-counter contracts in which two parties agree to exchange cash flows. The Bank uses the following types of swap contracts:

- Cross-currency swaps are transactions in which counterparties exchange fixed-rate interest payments and principal payments in different currencies.
- Interest rate swaps are transactions in which counterparties exchange fixed and floating rate interest payments, based on the notional principal value in the same currency.
- Commodity swaps are transactions in which counterparties exchange fixed and floating rate payments, based on the notional principal value of a commodity.
- Equity swaps are transactions in which counterparties agree to exchange the return on one equity or group of equities for a payment based on a benchmark interest rate.
- Credit default swaps are transactions in which one of the parties agrees to pay returns to the other party so that the latter can make a payment if a credit event occurs.

Options

Options are agreements between two parties in which the writer of the option grants the buyer the right, but not the obligation, to buy or sell, either at a specified date or dates or at any time prior to a predetermined expiry date, a specific amount of currency, commodity or financial instrument at an agreed-upon price upon the sale of the option. The writer receives a premium for the sale of this instrument.

NOTE 17 – DERIVATIVE FINANCIAL INSTRUMENTS (cont.)

Notional Amounts

Notional amounts are not presented in assets or liabilities on the Consolidated Balance Sheet. They represent the reference amount of the contract to which a rate or price is applied to determine the amount of cash flows to be exchanged.

As at October 31							2016	2015
	Term to maturity							
	3 months or less	Over 3 months to 12 months	Over 1 year to 5 years	Over 5 years	Total contracts	Contracts held for trading purposes	Contracts designated as hedges	Total contracts
Interest rate contracts								
OTC contracts								
Forward rate agreements								
Not settled by central counterparties	885	1,289	75	–	2,249	2,249	–	1,961
Settled by central counterparties	–	6,976	1,039	–	8,015	8,015	–	8,910
Swaps								
Not settled by central counterparties	10,047	15,035	64,738	42,544	132,364	126,082	6,282	150,211
Settled by central counterparties	47,541	88,761	98,086	55,209	289,597	264,535	25,062	286,918
Options purchased	1,614	2,169	768	311	4,862	4,632	230	8,329
Options written	612	724	963	575	2,874	2,556	318	6,121
	60,699	114,954	165,669	98,639	439,961	408,069	31,892	462,450
Exchange-traded contracts								
Futures								
Long positions	11,797	12,163	8,315	–	32,275	32,275	–	6,016
Short positions	35,188	6,510	8,577	–	50,275	50,275	–	22,827
Options purchased	16,578	2,670	–	–	19,248	19,248	–	1,921
Options written	17,646	2,473	–	–	20,119	20,119	–	–
	81,209	23,816	16,892	–	121,917	121,917	–	30,764
Foreign exchange contracts								
OTC contracts								
Forwards	22,707	12,381	8,537	1,596	45,221	45,170	51	24,746
Swaps	77,446	25,224	41,967	31,105	175,742	163,588	12,154	176,716
Options purchased	3,775	3,301	746	–	7,822	7,822	–	10,619
Options written	3,607	2,721	677	–	7,005	7,005	–	10,524
	107,535	43,627	51,927	32,701	235,790	223,585	12,205	222,605
Exchange-traded contracts								
Futures								
Long positions	41	–	–	–	41	41	–	48
Short positions	756	–	–	–	756	756	–	108
Options purchased	10	–	–	–	10	10	–	2
Options written	4	–	–	–	4	4	–	7
	811	–	–	–	811	811	–	165
Equity, commodity and credit derivative contracts[(1)]								
OTC contracts								
Forwards	68	196	2,340	605	3,209	3,209	–	3,987
Swaps								
Not settled by central counterparties	2,592	4,024	13,095	483	20,194	20,120	74	20,306
Settled by central counterparties	21	156	1,376	416	1,969	1,969	–	1,320
Options purchased	252	123	1,607	178	2,160	2,160	–	2,100
Options written	184	193	2,082	103	2,562	2,562	–	2,186
	3,117	4,692	20,500	1,785	30,094	30,020	74	29,899
Exchange-traded contracts								
Futures								
Long positions	3,118	167	211	78	3,574	3,574	–	4,396
Short positions	7,156	1,355	1,212	75	9,798	9,798	–	5,546
Options purchased	1,755	344	212	–	2,311	2,311	–	2,146
Options written	1,171	661	960	137	2,929	2,929	–	1,385
	13,200	2,527	2,595	290	18,612	18,612	–	13,473
	266,571	189,616	257,583	133,415	847,185	803,014	44,171	759,356

(1) Includes precious metal contracts.

Credit Risk

Credit risk on derivative financial instruments is the risk of financial loss that the Bank will have to assume if a counterparty fails to honour its contractual obligations. Credit risk related to derivative financial instruments is subject to the same credit approval, credit limit and monitoring standards as those applied to the Bank's other credit transactions. Consequently, the Bank evaluates the creditworthiness of counterparties and monitors the size of the portfolios as well as the diversification and maturity profiles of these financial instruments.

The Bank limits the credit risk of over-the-counter contracts by dealing with creditworthy counterparties and entering into contracts that provide for the exchange of collateral between parties where the fair value of the outstanding transactions exceeds an agreed threshold. The Bank also negotiates master netting agreements that provide for the simultaneous close-out and settling of all transactions with a given counterparty in the event of default, insolvency or bankruptcy. However, overall exposure to credit risk, reduced through master netting agreements, may change substantially after the balance sheet date because it is affected by all transactions subject to a contract as well as by changes in the market rates of the underlying instruments.

The Bank also uses financial intermediaries to have access to established clearing houses in order to minimize the settlement risk for certain financial derivative transactions. In some cases, the Bank has direct access to clearing houses for settling derivative financial instruments. In addition, certain derivative financial instruments traded over the counter are settled directly or indirectly by central counterparties.

In the case of exchange-traded contracts, exposure to credit risk is limited because these transactions are standardized contracts executed on established exchanges, each of which is associated with a well-capitalized clearing house that assumes the obligations of both counterparties and guarantees their performance obligations. All exchange-traded contracts are subject to initial margins and daily settlement.

Terms Used

Replacement Cost

Replacement cost is the Bank's maximum credit risk associated with derivative financial instruments as at the Consolidated Balance Sheet date. This amount is the positive fair value of all over-the-counter derivative financial instruments, before all master netting agreements and collateral held.

Credit Risk Equivalent

The credit risk equivalent amount is the total replacement cost plus an amount representing the potential future credit risk exposure, as outlined in the guidelines issued by OSFI.

Risk-Weighted Amount

The risk-weighted amount is determined by applying the Basel rules to the credit risk equivalent.

Credit Risk Exposure of the Derivative Financial Instrument Portfolio

As at October 31			2016			2015
	Replacement cost[1]	Credit risk equivalent	Risk-weighted amount	Replacement cost[1]	Credit risk equivalent	Risk-weighted amount
Interest rate contracts	3,812	9,213	909	4,284	8,212	1,183
Foreign exchange contracts	4,295	10,784	1,715	4,278	10,150	1,532
Equity, commodity and credit derivative contracts	2,222	4,702	487	2,185	4,573	690
	10,329	24,699	3,111	10,747	22,935	3,405
Impact of master netting agreements	(4,743)	(11,721)	(629)	(5,110)	(11,364)	(457)
	5,586	12,978	2,482	5,637	11,571	2,948

(1) As at October 31, 2016, the total positive fair value of exchange-traded contracts, which amounted to $87 million ($95 million as at October 31, 2015), was excluded.

Credit Risk Exposure of the Derivative Financial Instrument Portfolio by Counterparty

As at October 31		2016		2015
	Replacement cost	Credit risk equivalent	Replacement cost	Credit risk equivalent
OECD[1] governments	1,084	1,859	1,163	1,917
Banks of OECD member countries	1,025	3,809	1,132	4,040
Other	3,477	7,310	3,342	5,614
	5,586	12,978	5,637	11,571

(1) Organization for Economic Co-operation and Development.

NOTE 17 – DERIVATIVE FINANCIAL INSTRUMENTS (cont.)

Fair Value of Derivative Financial Instruments

As at October 31			2016			2015
	Positive	Negative	Net	Positive	Negative	Net
Contracts held for trading purposes						
Interest rate contracts						
Forwards	7	3	4	3	5	(2)
Swaps	2,843	2,147	696	3,115	2,279	836
Options	43	10	33	30	20	10
	2,893	2,160	733	3,148	2,304	844
Foreign exchange contracts						
Forwards	1,140	873	267	593	488	105
Swaps	2,987	2,782	205	3,494	2,467	1,027
Options	160	138	22	187	197	(10)
	4,287	3,793	494	4,274	3,152	1,122
Equity, commodity and credit derivative contracts						
Forwards	1,407	152	1,255	1,378	316	1,062
Swaps	490	521	(31)	592	810	(218)
Options	410	407	3	310	341	(31)
	2,307	1,080	1,227	2,280	1,467	813
Total – Contracts held for trading purposes	9,487	7,033	2,454	9,702	6,923	2,779
Contracts designated as hedges						
Interest rate contracts						
Forwards	–	–	–	–	–	–
Swaps	917	679	238	1,133	751	382
Options	2	12	(10)	3	80	(77)
	919	691	228	1,136	831	305
Foreign exchange contracts						
Forwards	–	1	(1)	–	2	(2)
Swaps	8	–	8	4	–	4
Options	–	–	–	–	–	–
	8	1	7	4	2	2
Equity, commodity and credit derivative contracts						
Forwards	–	–	–	–	–	–
Swaps	2	–	2	–	–	–
Options	–	–	–	–	–	–
	2	–	2	–	–	–
Total – Contracts designated as hedges	929	692	237	1,140	833	307
Designated as fair value hedges	580	436	144	731	466	265
Designated as cash flow hedges	341	255	86	405	365	40
Designated as a hedge of a net investment in a foreign operation	8	1	7	4	2	2
Total fair value	10,416	7,725	2,691	10,842	7,756	3,086
Impact of master netting agreements	(4,743)	(4,743)	–	(5,110)	(5,110)	–
	5,673	2,982	2,691	5,732	2,646	3,086

NOTE 18 – HEDGING ACTIVITIES

Derivative and Non-Derivative Financial Instruments Designated as Hedging Instruments

As at October 31			2016			2015
	Fair value hedge	**Cash flow hedge**	**Net investment hedge**	Fair value hedge	Cash flow hedge	Net investment hedge
Assets						
Derivative financial instruments	**580**	**341**	**8**	731	405	4
Liabilities						
Derivative financial instruments	**436**	**255**	**1**	466	365	2
Carrying value of non-derivative financial instruments	**–**	**–**	**1,024**	–	–	1,690
Notional amounts of designated derivative financial instruments	**18,965**	**24,714**	**492**	25,433	28,521	632

Fair Value Hedges

Fair value hedge transactions consist of using interest rate swaps to hedge changes in the fair value of a financial asset or financial liability caused by interest rate fluctuations. Changes in the fair value of the derivative financial instruments used as hedging instruments offset changes in the fair value of the hedged item. The Bank applies this strategy mainly to portfolios of available-for-sale securities, fixed-rate deposits, liabilities related to transferred receivables and subordinated debt.

Results of the Fair Value Hedges

Year ended October 31	2016	2015
Gains (losses) on hedging instruments	**(13)**	61
Gains (losses) on hedged items attributable to the hedged risk	**12**	(59)
Ineffectiveness of fair value hedging relationships	**–**	–

Cash Flow Hedges

Cash flow hedge transactions consist of using interest rate swaps to hedge the risk of changes in future cash flows caused by floating-rate assets or liabilities. The Bank applies this strategy mainly to loan, personal credit line and deposit portfolios. The Bank also uses total return swaps to hedge the risk of changes in future cash flows related to the Restricted Stock Unit (RSU) Plan. Some of these swaps are designated as part of a cash flow hedge against a portion of the unrecognized obligation of the RSU Plan. In a cash flow hedge, the derivative financial instruments used as hedging instruments reduce the variability of future cash flows related to the hedged item.

Results of the Cash Flow Hedges

Year ended October 31	2016	2015
Unrealized gains (losses) included in *Other comprehensive income* as the effective portion of the hedging instrument	**47**	18
Losses (gains) reclassified to *Net interest income* in the Consolidated Statement of Income	**(25)**	(15)
Ineffectiveness of cash flow hedging relationships	**(1)**	1

NOTE 18 – HEDGING ACTIVITIES (cont.)

The following table shows the periods during which the Bank expects the hedged cash flows to occur and have an impact on net income.

				As at October 31, 2016
	1 year or less	Over 1 year to 2 years	Over 2 years to 5 years	Over 5 years
Expected cash flows from hedged assets	24	27	74	52
Expected cash flows from hedged liabilities	55	54	120	36
Net exposure	(31)	(27)	(46)	16

				As at October 31, 2015
	1 year or less	Over 1 year to 2 years	Over 2 years to 5 years	Over 5 years
Expected cash flows from hedged assets	48	51	166	56
Expected cash flows from hedged liabilities	96	93	211	74
Net exposure	(48)	(42)	(45)	(18)

Hedges of Net Investments in Foreign Operations

The Bank's structural foreign exchange risk arises from investments in foreign operations denominated in currencies other than the Canadian dollar. The Bank measures this risk by assessing the impact of foreign currency fluctuations and hedges it using financial instruments (derivative or non-derivative). In a hedge of a net investment in a foreign operation, the financial instruments used offset foreign exchange gains and losses on the investments. When non-derivative financial instruments are designated as foreign exchange risk hedges, only the changes in fair value that are attributable to foreign exchange risk are taken into account in assessing and calculating the effectiveness of the hedge.

For the years ended October 31, 2016 and 2015, a negligible amount representing the ineffective portion was recognized in *Non-interest income* in the Consolidated Statement of Income.

NOTE 19 – SHARE CAPITAL

Authorized

Common Shares

An unlimited number of shares without par value.

First Preferred Shares

An unlimited number of shares, without par value, issuable for a maximum aggregate consideration of $5 billion.

First Preferred Shares

As at October 31, 2016

	Redemption and conversion date in effect as of(1)(2)	Redemption price per share ($)(1)	Convertible into preferred shares(2)	Dividend per share ($)(3)	Reset premium
First preferred shares issued and outstanding					
Series 28	November 15, 2017 (4)(5)	25.00	Series 29	0.23750 (6)	2.43 %
Series 30(7)	May 15, 2019 (4)(5)	25.00	Series 31	0.25625 (6)	2.40 %
Series 32(7)	February 15, 2020 (4)(5)	25.00	Series 33	0.24375 (6)	2.25 %
Series 34(7)	May 15, 2021 (4)(5)	25.00	Series 35	0.35000 (6)	4.90 %
Series 36(7)	August 15, 2021 (4)(5)	25.00	Series 37	0.33750 (6)	4.66 %
First preferred shares authorized but not issued					
Series 19(8)	June 30, 2013	25.25 (9)	n.a.	0.68750	n.a.
Series 23(8)	July 31, 2013	25.25 (9)	n.a.	0.75000	n.a.
Series 29	November 15, 2017 (4)	25.50 (10)	n.a.	Floating rate (11)	2.43 %
Series 31(7)	May 15, 2019 (4)	25.50 (10)	n.a.	Floating rate (11)	2.40 %
Series 33(7)	February 15, 2020 (4)	25.50 (10)	n.a.	Floating rate (11)	2.25 %
Series 35(7)	May 15, 2021 (4)	25.50 (10)	n.a.	Floating rate (11)	4.90 %
Series 37(7)	August 15, 2021 (4)	25.50 (10)	n.a.	Floating rate (11)	4.66 %

n.a. Not applicable
(1) Redeemable in cash at the Bank's option, in whole or in part, subject to the provisions of the *Bank Act* (Canada) and to OSFI approval. Redemption prices are increased by all the declared and unpaid dividends on the preferred shares to the date fixed for redemption.
(2) Convertible at the option of the holders of first preferred shares, subject to certain conditions.
(3) The dividends are non-cumulative and payable quarterly, except for Series 19 and 23, for which the dividends are payable semi-annually.
(4) Redeemable as of the date fixed for redemption and on the same date every five years thereafter.
(5) Convertible as of the date fixed for conversion and on the same date every five years thereafter, subject to certain conditions.
(6) The dividend amount is set for the initial period ending on the date fixed for redemption. Thereafter, these shares carry a non-cumulative quarterly fixed dividend in an amount per share determined by multiplying the rate of interest equal to the sum of the 5-year Government of Canada bond yield on the applicable fixed-rate calculation date by $25.00, plus the reset premium.
(7) Upon the occurrence of a trigger event as defined by OSFI, each outstanding preferred share will be automatically and immediately converted, on a full and permanent basis, without the consent of the holder, into a number of common shares of the Bank determined pursuant to an automatic conversion formula. This conversion will be calculated by dividing the value of the preferred shares, i.e., $25.00 per share, plus all declared and unpaid dividends as at the date of the trigger event, by the value of the common shares. The value of the common shares will be the greater of a $5.00 floor price or the current market price of the common shares. Current market price means the volume weighted average trading price of common shares for the ten consecutive trading days ending on the trading day preceding the date of the trigger event. If the common shares are not listed on an exchange when this price is being established, the price will be the fair value reasonably determined by the Bank's Board.
(8) For additional information, see Note 20.
(9) Redeemable at $25.25 per share if redeemed during the 12-month period prior to June 30, 2017 and at $25.00 if redeemed on or after June 30, 2017.
(10) As of the date fixed for redemption, the redemption price will be $25.50 per share. Thereafter, on the same date every five years, the redemption price will be $25.00 per share.
(11) The dividend period begins as of the date fixed for redemption. The amount of the floating quarterly non-cumulative dividend is determined by multiplying the rate of interest equal to the sum of the 90-day Government of Canada treasury bill yield on the floating rate calculation date by $25.00, plus the reset premium.

Second Preferred Shares

15 million shares without par value, issuable for a total maximum consideration of $300 million. As at October 31, 2016, no shares had been issued or traded.

NOTE 19 – SHARE CAPITAL (cont.)

Shares Outstanding

As at October 31	2016		2015	
	Number of shares	Shares $	Number of shares	Shares $
First Preferred Shares				
Series 20	–	–	6,900,000	173
Series 28	8,000,000	200	8,000,000	200
Series 30	14,000,000	350	14,000,000	350
Series 32	12,000,000	300	12,000,000	300
Series 34	16,000,000	400	–	–
Series 36	16,000,000	400	–	–
	66,000,000	1,650	40,900,000	1,023
Common shares at beginning of the fiscal year	337,236,322	2,614	329,297,375	2,293
Issued under a public offering	–	–	7,160,000	300
Issued pursuant to the Stock Option Plan	1,122,756	43	1,059,650	39
Impact of shares purchased or sold for trading[1]	(306,024)	(12)	(280,703)	(18)
Common shares at end of year	338,053,054	2,645	337,236,322	2,614

(1) As at October 31, 2016, 37,863 shares were sold short for trading, representing a total amount of $2 million (343,887 shares representing $14 million as at October 31, 2015).

Dividends Declared

Year ended October 31	2016		2015	
	Dividends $	Dividends per share	Dividends $	Dividends per share
First Preferred Shares				
Series 20	–	–	10	1.5000
Series 28	8	0.9500	8	0.9500
Series 30	14	1.0250	14	1.0250
Series 32	12	0.9750	13	1.0760
Series 34	18	1.1373	–	–
Series 36	9	0.5733	–	–
	61		45	
Common shares	736	2.1800	672	2.0400
	797		717	

Issuances of Preferred Shares

On June 13, 2016, the Bank issued 16,000,000 Non-Cumulative 5-Year Rate-Reset Series 36 First Preferred Shares at a price equal to $25.00 per share for gross proceeds of $400 million. Given that the Series 36 preferred shares satisfy the non-viability contingent capital requirements, they qualify for the purposes of calculating regulatory capital under Basel III.

On January 22, 2016, the Bank issued 16,000,000 Non-Cumulative 5-Year Rate-Reset Series 34 First Preferred Shares at a price equal to $25.00 per share for gross proceeds of $400 million. Given that the Series 34 preferred shares satisfy the non-viability contingent capital requirements, they qualify for the purposes of calculating regulatory capital under Basel III.

Redemption of Preferred Shares
On November 16, 2015, which was the first business day after the anticipated November 15, 2015 redemption date, the Bank redeemed all of the issued and outstanding Non-Cumulative Fixed-Rate Series 20 First Preferred Shares. Pursuant to the share conditions, the redemption price was $25.50 per share plus the periodic dividend declared and unpaid. The Bank redeemed 6,900,000 Series 20 preferred shares for a total amount of $176 million, which reduced *Preferred share capital* by $173 million and *Retained earnings* by $3 million.

Issuance of Common Shares
On October 9, 2015, the Bank issued 7,160,000 common shares at a per-share price of $41.90 for gross proceeds of $300 million, which increased *Common share capital* by $300 million.

Repurchase of Common Shares
On May 11, 2015, the Bank began a normal course issuer bid to repurchase for cancellation up to 6,000,000 common shares over the 12-month period ended May 10, 2016. The shares were to be repurchased on the open market at market prices through the Toronto Stock Exchange. The amounts that would have been paid above the average book value of the common shares would have been charged to *Retained earnings.* During the years ended October 31, 2016 and 2015, the Bank did not repurchase any common shares.

Reserved Common Shares
As at October 31, 2016 and 2015, 15,507,568 common shares were reserved under the Dividend Reinvestment and Share Purchase Plan. As at October 31, 2016, 21,003,961 common shares (22,126,717 as at October 31, 2015) were reserved under the Stock Option Plan.

Common Shares Held in Escrow
As part of the acquisition of Wellington West Holdings Inc. in 2011, the Bank had issued common shares held in escrow. As at October 31, 2016, the number of common shares held in escrow was 936,785 (936,785 as at October 31, 2015). The Bank expects that only a portion of the shares held in escrow will be released by the end of calendar year 2016 since the release of the remaining common shares in escrow is conditional upon the settlement of certain indemnifications guaranteed by these shares.

Restriction on the Payment of Dividends
The Bank is prohibited from declaring dividends on its common or preferred shares if there are reasonable grounds for believing that the Bank would, by so doing, be in contravention of the regulations of the *Bank Act* (Canada) or OSFI's capital adequacy and liquidity guidelines. In addition, the ability to pay common share dividends is restricted by the terms of the outstanding preferred shares pursuant to which the Bank may not pay dividends on its common shares without the approval of the holders of the outstanding preferred shares, unless all preferred share dividends have been declared and paid or set aside for payment. Moreover, if NBC Asset Trust were unable to pay the full amount of distributions on the trust units, the Bank would not be permitted to pay dividends on its preferred or common shares. For additional information, see Notes 20 and 28.

Dividend Reinvestment Plan
The Bank has a dividend reinvestment plan for common and preferred shareholders. Participation in the plan is optional. Under the terms and conditions of the plan, participants acquire shares through the reinvestment of cash dividends paid on the shares they hold or through optional cash payments. Common shares subscribed by participants are purchased on their behalf in the secondary market through the Bank's transfer agent, Computershare Trust Company of Canada, at a price equal to the average purchase price of the common shares during the ten business days immediately following the dividend payment date.

NOTE 20 – NON-CONTROLLING INTERESTS

As at October 31	2016	2015
Trust units issued by NBC Asset Trust (NBC CapS II)		
Series 1[1]	410	410
Series 2[2]	359	359
Other	41	32
	810	801

(1) Includes $10 million in accrued interest ($10 million as at October 31, 2015).
(2) Includes $9 million in accrued interest ($9 million as at October 31, 2015).

Trust Units Issued by NBC Asset Trust

Through structured entity NBC Asset Trust (the Trust), a closed-end trust established under the laws of the Province of Ontario, the Bank issued transferable non-voting trust units called "Trust Capital Securities" or "NBC CapS II." These securities are not redeemable or exchangeable for Bank preferred shares at the option of the holder. The gross proceeds from the issuance were used by the Trust to finance the acquisition of mortgage loans from the Bank. For additional information, see Note 28.

The main terms and characteristics of the NBC CapS II trust units are presented below.

	Number	Issuance date	Annual yield	Distribution dates	Semi-annual distribution by NBC CapS II[1]
Series 1	400,000	January 22, 2008	7.235 %	June 30, December 31	$36.175[2]
Series 2	350,000	June 30, 2008	7.447 %	June 30, December 31	$37.235[3]

(1) For each unit with a face value of $1,000.
(2) For each distribution date after June 30, 2018, the distribution will be paid at a rate equal to one-half the sum of the 180-day bankers' acceptance rate in effect plus 3.79%.
(3) For each distribution date after June 30, 2020, the distribution will be paid at a rate equal to one-half the sum of the 180-day bankers' acceptance rate in effect plus 4.09%.

Distribution

No cash distributions will be payable by the Trust on NBC CapS II if the Bank fails to declare regular dividends on its preferred shares or, if no preferred shares are then outstanding, on its outstanding common shares. In this case, the net distributable funds of the Trust will be paid to the Bank as the sole holder of the special trust securities, representing the residual interest in the Trust. Should the Trust fail to pay the semi-annual distributions in full on the NBC CapS II, the Bank will withhold from declaring dividends on any of its preferred and common shares during a determined period.

Automatic Exchange

Each NBC CapS II – Series 1 can be exchanged automatically, without the consent of the holders, for 40 Series 19 First Preferred Shares of the Bank, and each NBC CapS II – Series 2 can be exchanged automatically, without the consent of the holders, for 40 Series 23 First Preferred Shares of the Bank upon the occurrence of one of the following events: (i) proceedings are commenced for the winding-up of the Bank; (ii) OSFI takes control of the Bank; (iii) the Bank posts a Tier 1 capital ratio of less than 5% or a Total capital ratio of less than 8%; or (iv) OSFI has directed the Bank to increase its capital or to provide additional liquidity and the Bank elects such automatic exchange or the Bank fails to comply with such direction to the satisfaction of OSFI. On an automatic exchange, the Bank will hold all outstanding trust capital securities of the Trust.

Redemption at the Option of the Trust

On any distribution date, the Trust may, subject to prior written notice and OSFI approval, redeem, at its option, the NBC CapS II – Series 1 and Series 2, in whole but not in part, without the consent of the holders.

Purchase for Cancellation

The Trust may, with OSFI approval, purchase NBC CapS II – Series 1 and Series 2, in whole or in part, on the open market or by tender or private contract at any price. The NBC CapS II purchased by the Trust, if any, will be cancelled and will not be reissued.

Regulatory Capital

The NBC CapS II – Series 1 and Series 2 qualify as innovative capital instruments and are eligible as additional Tier 1 capital, but because these instruments do not satisfy the non-viability contingent capital requirements, they are to be phased out at a rate of 10% per year between 2013 and 2022.

NOTE 21 – CAPITAL DISCLOSURE

Capital Management Objectives, Policies and Procedures

Capital management has a dual role of ensuring a competitive return to the Bank's shareholders while maintaining a solid capital foundation that covers the risks inherent to the Bank's business, supports its business segments and protects its clients.

The Bank's capital management policy defines the guiding principles as well as the roles and responsibilities regarding its internal capital adequacy assessment process. This process is a key tool in establishing the Bank's capital strategy and is subject to quarterly reviews and periodic amendments.

Capital Management

The capital ratio is the ratio expressed as a percentage of regulatory capital to risk-weighted assets. Risk-weighted assets are calculated in accordance with the rules established by OSFI for on- and off-balance-sheet risks. Credit, market and operational risks are factored into the risk-weighted assets calculation for regulatory purposes. The definition adopted by the Basel Committee on Banking Supervision (BCBS) distinguishes between three types of capital. Common Equity Tier 1 (CET1) capital consists of common shareholders' equity less goodwill, intangible assets and other capital deductions. The Additional Tier 1 instruments comprise eligible non-cumulative preferred shares and the eligible amount of innovative instruments. The sum of CET1 and Additional Tier 1 capital form what is known as Tier 1 capital. Tier 2 capital consists of the eligible portion of subordinated debt and certain loan loss allowances. Total regulatory capital is the sum of Tier 1 and Tier 2 capital.

The Basel III regulatory framework sets out transitional arrangements for the period of 2013 to 2019. However, OSFI has been requiring Canadian banks to meet the 2019 minimum "all-in" requirements rather than the minimum ratios calculated using the transitional methodology. The "all-in" methodology includes all of the regulatory adjustments that will be required by 2019 while retaining the phase-out rules for non-qualifying capital instruments. Consequently, since January 1, 2016, the Bank and all other major Canadian banks have had to maintain, on an "all-in" basis, a CET1 capital ratio of at least 8.0%, a Tier 1 capital ratio of at least 9.5%, and a Total capital ratio of at least 11.5%. All of these ratios are to include a capital conservation buffer of 2.5% and a 1% surcharge applicable to Domestic Systemically Important Banks.

Since January 1, 2015, OSFI has been requiring Canadian banks to meet a Basel III leverage ratio of at least 3.0%. The leverage ratio is a measure independent of risk that is calculated by dividing the amount of Tier 1 capital by total exposure. Total exposure is defined as the sum of on-balance-sheet assets (including derivative exposures and securities financing transaction exposures) and off-balance-sheet items. The assets deducted from Tier 1 capital are also deducted from total exposure.

During the years ended October 31, 2016 and 2015, the Bank was in compliance with all of OSFI's regulatory capital requirements.

NOTE 21 – CAPITAL DISCLOSURE (cont.)

Regulatory Capital and Ratios Under Basel III[1]

As at October 31	2016	2015
Capital		
CET1	6,865	6,801
Tier 1[2]	9,265	8,626
Total[2][3]	10,506	9,678
Risk-weighted assets		
CET1 capital	68,205	68,835
Tier 1 capital	68,430	69,094
Total capital	68,623	69,316
Total exposure	253,097	234,957
Capital ratios		
CET1	10.1 %	9.9 %
Tier 1[2]	13.5 %	12.5 %
Total[2][3]	15.3 %	14.0 %
Leverage ratio	3.7 %	3.7 %

(1) Figures are presented on an "all-in" basis.
(2) Figures as at October 31, 2015 include the redemption of the Series 20 preferred shares on November 15, 2015.
(3) Figures as at October 31, 2015 include the $500 million nominal value redemption of notes on November 2, 2015.

NOTE 22 – TRADING ACTIVITY REVENUES

Trading activity revenues consist of the net interest income from trading activities and trading revenues recognized in *Non-interest income* in the Consolidated Statement of Income.

Net interest income comprises dividends related to financial assets and liabilities associated with trading activities, net of interest expenses and interest income related to the financing of these financial assets and liabilities.

Non-interest income consists of realized and unrealized gains and losses as well as interest income on securities measured at fair value through profit or loss, income from held-for-trading derivative financial instruments, and the change in fair value of financial instruments designated at fair value through profit or loss.

Year ended October 31	2016	2015
Net interest income	515	473
Non-interest income	150	209
	665	682

NOTE 23 – SHARE-BASED PAYMENTS

The compensation expense information provided below excludes the impact of hedging.

Stock Option Plan

The Bank's Stock Option Plan is for officers and other designated persons of the Bank and its subsidiaries. Under this plan, options are awarded annually and provide participants with the right to purchase common shares at an exercise price equal to the closing price of the Bank's common share on the Toronto Stock Exchange on the day preceding the award. The options vest evenly over a four-year period and expire ten years from the award date or, in certain circumstances set out in the plan, within specified time limits. The Stock Option Plan contains provisions for retiring employees that allow the participant's rights to continue vesting in accordance with the stated terms of the grant agreement. The maximum number of common shares that may be issued under the Stock Option Plan was 21,003,961 as at October 31, 2016 (22,126,717 as at October 31, 2015). The number of common shares reserved for a participant may not exceed 5% of the total number of Bank shares issued and outstanding.

As at October 31		2016		2015
	Number of options	**Weighted average exercise price**	Number of options	Weighted average exercise price
Stock Option Plan				
Outstanding at beginning	**16,652,313**	**$37.33**	14,676,191	$34.65
Awarded	**2,140,420**	**$42.17**	3,170,260	$47.93
Exercised	**(1,122,756)**	**$33.06**	(1,059,650)	$32.11
Cancelled[1]	**(367,655)**	**$44.30**	(134,488)	$36.27
Outstanding at end	**17,302,322**	**$38.05**	16,652,313	$37.33
Exercisable at end	**10,850,976**	**$34.32**	9,103,781	$31.98

(1) Includes 900 expired options during the year ended October 31, 2016 (no expired option during the year ended October 31, 2015).

Exercise price	Options outstanding	Options exercisable	Expiry date
$32.95	401,982	401,982	December 2016
$26.93	775,278	775,278	December 2017
$17.44	1,072,040	1,072,040	December 2018
$29.25	1,216,624	1,216,624	December 2019
$34.34	1,568,391	1,568,391	December 2020
$34.09	2,018,574	2,018,574	December 2021
$38.36	2,489,932	1,759,776	December 2022
$44.96	2,615,542	1,283,802	December 2023
$47.93	3,016,179	754,509	December 2024
$42.17	2,127,780	–	December 2025
	17,302,322	10,850,976	

During the year ended October 31, 2016, the Bank awarded 2,140,420 stock options (3,170,260 during the year ended October 31, 2015) with an average fair value of $3.70 per option ($7.44 for the year ended October 31, 2015).

The average fair value of options awarded was estimated on the award date using the Black-Scholes model as well as the following assumptions.

As at October 31	**2016**	2015
Risk-free interest rate	**1.43%**	2.01%
Expected life of options	**7 years**	7 years
Expected volatility	**21.12%**	24.82%
Expected dividend yield	**5.33%**	4.00%

NOTE 23 – SHARE-BASED PAYMENTS (cont.)

The expected life of the options is based on historical data and is not necessarily representative of how options will be exercised in the future. Expected volatility is extrapolated from the implied volatility of the Bank's share price and observable market inputs, which are not necessarily representative of actual results. The expected dividend yield represents the annualized dividend divided by the Bank's share price at the award date. The risk-free interest rate is based on the Canadian dollar swap curve at the award date. The exercise price is equal to the Bank's share price at the award date. No other market parameter has been included in the fair value measurement of the options.

The compensation expense recorded for this plan for the year ended October 31, 2016 was $12 million ($20 million for the year ended October 31, 2015).

Stock Appreciation Rights (SAR) Plan

The SAR Plan is for officers and other designated persons of the Bank and its subsidiaries. Under this plan, participants receive, upon exercising the right, a cash amount equal to the difference between the closing price of the Bank's common share on the Toronto Stock Exchange on the day preceding the exercise date and the closing price on the day preceding the award date. SARs vest evenly over a four-year period and expire 10 years after the award date or, in certain circumstances set out in the plan, within specified time limits. The SAR Plan contains provisions for retiring employees that allow the participant's rights to continue vesting in accordance with the stated terms of the grant agreement. A compensation expense of $1 million was recognized for the year ended October 31, 2016 with respect to this plan (a $1 million reversal of compensation expense for the year ended October 31, 2015).

As at October 31		2016		2015
	Number of SARs	**Weighted average exercise price**	Number of SARs	Weighted average exercise price
SAR Plan				
Outstanding at beginning	**319,920**	**$37.42**	243,540	$33.58
Awarded	**74,180**	**$42.17**	83,252	$47.93
Exercised[1]	**(44,244)**	**$28.24**	(6,872)	$28.61
Outstanding at end	**349,856**	**$39.59**	319,920	$37.42
Exercisable at end	**185,143**	**$35.28**	181,188	$31.51

(1) No SARs cancelled or expired during the years ended October 31, 2016 and 2015.

Exercise price	SARs outstanding	SARs exercisable	Expiry date
$32.95	–	–	December 2016
$26.93	5,896	5,896	December 2017
$17.44	10,780	10,780	December 2018
$29.25	34,430	34,430	December 2019
$34.34	35,438	35,438	December 2020
$34.09	32,084	32,084	December 2021
$38.36	37,796	27,862	December 2022
$44.96	36,000	17,840	December 2023
$47.93	83,252	20,813	December 2024
$42.17	74,180	–	December 2025
	349,856	185,143	

Deferred Stock Unit (DSU) Plans

The DSU Plans are for officers and other designated persons of the Bank and its subsidiaries as well as directors. These plans allow the Bank to tie a portion of the value of the compensation of participants to the future value of the Bank's common shares. A DSU is a right that has a value equal to the closing price of a common share of the Bank on the Toronto Stock Exchange on the day preceding the award. DSUs generally vest evenly over four years. Additional DSUs are credited to the participant's account equal in amount to the dividends paid on common shares of the Bank and vest evenly over the same period as the reference DSUs. DSUs may only be cashed when participants retire or leave the Bank, or for directors, when their term ends. The DSU Plan contains provisions for retiring employees that allow the participant's units to continue vesting in accordance with the stated terms of the grant agreement.

During the year ended October 31, 2016, the Bank awarded 79,098 DSUs at a weighted average price of $42.17 (78,011 DSUs at a weighted average price of $47.93 for the year ended October 31, 2015). A total of 688,035 DSUs were outstanding as at October 31, 2016 (772,348 DSUs as at October 31, 2015). A compensation expense of $9 million was recognized for the year ended October 31, 2016 with respect to these plans (a reversal of compensation expense of $1 million for the year ended October 31, 2015).

Restricted Stock Unit (RSU) Plan

The RSU Plan is for certain officers and other designated persons of the Bank and its subsidiaries. The objective of this plan is to ensure that the compensation of certain officers and other designated persons is competitive and to foster retention. An RSU represents a right that has a value equal to the average closing price of the Bank's common share, as published by the Toronto Stock Exchange, over the ten trading days preceding the sixth business day in December. RSUs generally vest evenly over three years, although some RSUs vest on the sixth business day of December of the third year following the date of the award, the date on which all RSUs expire. Additional RSUs are credited to the participant's account equal in amount to the dividends declared on the common shares of the Bank and vest evenly over the same period as the reference RSUs. The RSU Plan contains provisions for retiring employees that allow the participant's units to continue vesting in accordance with the stated terms of the award agreement.

During the year ended October 31, 2016, the Bank awarded 2,631,545 RSUs at a weighted average price of $43.43 (1,952,849 RSUs at a weighted average price of $47.93 for the year ended October 31, 2015). As at October 31, 2016, a total of 5,205,269 RSUs were outstanding (4,817,459 RSUs as at October 31, 2015). A compensation expense of $122 million was recognized for the year ended October 31, 2016 with respect to the Plan ($77 million for the year ended October 31, 2015).

Performance Stock Unit (PSU) Plan

The PSU Plan is for officers and other designated persons of the Bank. The objective of this plan is to tie a portion of the value of the compensation of these officers and other designated persons to the future value of the Bank's common shares. A PSU represents a right that has a value equal to the average closing price of the Bank's common share, as published by the Toronto Stock Exchange, over the ten trading days preceding the sixth business day in December, adjusted upward or downward according to performance criteria, which is based on the total shareholder return (TSR) achieved by the Bank compared to that of the S&P/TSX Banks adjusted sub-index. PSUs vest on the sixth business day of December of the third year following the date of the award, the date on which all PSUs expire. Additional PSUs are credited to the participant's account in an amount equal to the dividends declared on the Bank's common shares and vest evenly over the same period as the reference PSUs. The PSU Plan contains provisions for retiring employees that allow the participant's units to continue vesting in accordance with the stated terms of the award agreement.

During the year ended October 31, 2016, the Bank awarded 364,163 PSUs at a weighted average price of $43.43 (201,101 PSUs at a weighted average price of $47.93 for the year ended October 31, 2015). As at October 31, 2016, a total of 781,846 PSUs were outstanding (646,985 PSUs as at October 31, 2015). A compensation expense of $15 million was recognized for the year ended October 31, 2016 with respect to the Plan ($8 million for the year ended October 31, 2015).

Deferred Compensation Plan of National Bank Financial (NBF)

This plan is exclusively for key employees of NBF Wealth Management. The purpose of this plan is to foster the retention of key employees and promote the growth in income and the continuous improvement in profitability at Wealth Management. Under this plan, participants can defer a portion of their annual compensation and NBF may pay a contribution to key employees when certain financial objectives are met. Amounts awarded by NBF and the compensation deferred by participants are invested in, among others, Bank common share units. These share units represent a right, the value of which corresponds to the closing price of the Bank's common share on the Toronto Stock Exchange on the award date. Additional units are paid to the participant's account equal in amount to the dividends declared on the Bank's common shares. Share units representing the amounts awarded by NBF vest evenly over four years. When a participant retires, or in certain cases when the participant's employment is terminated, the participant receives a cash amount representing the value of the vested share units.

During the year ended October 31, 2016, NBF awarded 163,845 share units at a weighted average price of $42.05 (230,179 share units at a weighted average price of $46.88 for the year ended October 31, 2015). As at October 31, 2016, 1,569,501 share units were outstanding (1,402,856 share units as at October 31, 2015). During the year ended October 31, 2016, a $13 million compensation expense was recognized for this Plan ($6 million for the year ended October 31, 2015).

Employee Share Ownership Plan

Under the Bank's Employee Share Ownership Plan, employees who meet the eligibility criteria can contribute up to 8% of their annual gross salary by way of payroll deductions. The Bank matches 25% of the employee contribution up to a maximum of $1,500 per annum. Bank contributions vest to the employee after one year of uninterrupted participation in the plan. Subsequent contributions vest immediately. The Bank's contributions, amounting to $10 million for the year ended October 31, 2016 ($10 million for the year ended October 31, 2015), were charged to *Compensation and employee benefits* when paid. As at October 31, 2016, a total of 6,359,681 common shares were held for this plan (6,201,300 common shares as at October 31, 2015).

Plan shares are purchased on the open market and are considered to be outstanding for earnings per share calculations. Dividends paid on the Bank's common shares held for the Employee Share Ownership Plan are used to purchase other common shares on the open market.

Plan Liabilities and Intrinsic Value

Total liabilities arising from the Bank's share-based compensation plans amounted to $391 million as at October 31, 2016 ($339 million as at October 31, 2015). The intrinsic value of these liabilities that had vested as at October 31, 2016 was $186 million ($167 million as at October 31, 2015).

NOTE 24 – EMPLOYEE BENEFITS – PENSION PLANS AND OTHER POST-EMPLOYMENT BENEFITS

The Bank offers defined benefit pension plans and other post-employment benefit plans to eligible employees. The pension plans provide benefits based on years of plan participation and average earnings at retirement. The other post-employment benefit plans include post-retirement medical, dental and life insurance coverage. The pension plans are funded whereas the other plans are not funded. The fair value of plan assets and the present value of the defined benefit obligation are measured as at October 31.

The Bank's most significant pension plan is the *Employee Pension Plan of the National Bank of Canada*; it is registered with OSFI and the Canada Revenue Agency and subject to the *Pension Benefits Standards Act, 1985* and the *Income Tax Act*.

The defined benefit plans expose the Bank to specific risks such as investment performance, changes to the discount rate used to calculate the obligation, the longevity of plan members and future inflation. While management believes that the assumptions used in the actuarial valuation process are reasonable, there remains a degree of risk and uncertainty that may cause future results to differ significantly from these assumptions, which could give rise to gains or losses.

According to the Bank's governance rules, the policies and risk management related to the defined benefit plans are overseen at different levels by the pension committees, the Bank's management and the Board's Human Resources Committee. The defined benefit plans are examined on an ongoing basis in order to monitor the funding and investment policies, the plans' financial status and the Bank's funding requirements.

The Bank's funding policy for the defined benefit pension plans is to make at least the minimum annual contributions required by pension regulators.

For funded plans, the Bank determines whether an economic benefit exists in the form of potential reductions in future contributions and in the form of refunds from the plan surplus, where permitted by applicable regulations and plan provisions.

Defined Benefit Obligation, Plan Assets and Funded Status

As at October 31

	Pension plans		Other post-employment benefit plans	
	2016	2015	**2016**	2015
Defined benefit obligation				
Balance at beginning	**3,263**	3,161	**173**	171
Current service cost	**71**	79	**4**	4
Interest cost	**145**	142	**7**	7
Remeasurements				
Actuarial (gains) losses arising from changes in demographic assumptions	**–**	–	**–**	–
Actuarial (gains) losses arising from changes in financial assumptions	**492**	(15)	**23**	(1)
Actuarial (gains) losses arising from experience adjustments	**2**	–	**1**	–
Employee contributions	**48**	46		
Benefits paid	**(178)**	(150)	**(9)**	(8)
Balance at end	**3,843**	3,263	**199**	173
Plan assets				
Fair value at beginning	**3,521**	3,340		
Interest income	**154**	147		
Administration cost	**(3)**	(4)		
Remeasurements				
Return on plan assets (excluding interest income)	**167**	68		
Bank contributions(1)	**67**	74		
Employee contributions	**48**	46		
Benefits paid	**(178)**	(150)		
Fair value at end	**3,776**	3,521		
Defined benefit asset (liability) at end	**(67)**	258	**(199)**	(173)

(1) For fiscal 2017, the Bank expects to pay an employer contribution of $64 million to the defined benefit pension plans.

Defined Benefit Asset (Liability)

As at October 31	Pension plans		Other post-employment benefit plans	
	2016	2015	**2016**	2015
Defined benefit asset included in *Other assets*	**48**	268		
Defined benefit liability included in *Other liabilities*	**(115)**	(10)	**(199)**	(173)
	(67)	258	**(199)**	(173)

Cost for Pension Plans and Other Post-Employment Benefits

Year ended October 31	Pension plans		Other post-employment benefit plans	
	2016	2015	**2016**	2015
Current service cost	**71**	79	**4**	4
Interest expense (income), net	**(9)**	(5)	**7**	7
Administration costs	**3**	4		
Expense recognized in *Net income*	**65**	78	**11**	11
Remeasurements				
Actuarial (gains) losses on defined benefit obligation	**494**	(15)	**24**	(1)
Return on plan assets[1]	**(167)**	(68)		
Remeasurements recognized in *Other comprehensive income*	**327**	(83)	**24**	(1)
	392	(5)	**35**	10

(1) Excluding interest income.

Allocation of the Fair Value of Pension Plan Assets

As at October 31	2016			2015		
	Quoted in an active market[1]	**Not quoted in an active market**	**Total**	Quoted in an active market[1]	Not quoted in an active market	Total
Asset classes						
Cash and cash equivalents	**–**	**54**	**54**	–	37	37
Equity securities	**1,489**	**391**	**1,880**	1,740	339	2,079
Debt securities						
Government of Canada	**297**	**–**	**297**	209	–	209
Provinces, municipalities and other public administrations	**–**	**1,052**	**1,052**	–	761	761
Restructured notes of the MAV III conduits	**–**	**44**	**44**	–	54	54
Other issuers	**–**	**376**	**376**	–	296	296
Other	**–**	**73**	**73**	–	85	85
	1,786	**1,990**	**3,776**	1,949	1,572	3,521

(1) Unadjusted quoted prices in active markets for identical assets that the Bank can access at the measurement date.

The Bank's investment strategy for plan assets considers several factors, including the time horizon of pension plan obligations and investment risk. For each plan, an allocation range per asset class is defined using a mix of equity and debt securities to optimize the risk-return profile of plan assets and minimize asset/liability mismatching.

The pension plan assets may include investment securities issued by the Bank. As at October 31, 2016 and 2015, the pension plan assets do not include any securities issued by the Bank.

For fiscal 2016, the Bank and its related entities received $6 million ($7 million in fiscal 2015) in fees from the pension plans for related management, administration and custodial services.

NOTE 24 – EMPLOYEE BENEFITS – PENSION PLANS AND OTHER POST-EMPLOYMENT BENEFITS (cont.)

Allocation of the Defined Benefit Obligation by the Status of Defined Benefit Plan Participants

As at October 31

	Pension plans		Other post-employment benefit plans	
	2016	2015	**2016**	2015
Active employees	**48 %**	46 %	**38 %**	38 %
Retirees	**48 %**	49 %	**62 %**	62 %
Participants with deferred vested benefits	**4 %**	5 %		
	100 %	100 %	**100 %**	100 %
Weighted average duration of the defined benefit obligation *(in years)*	**17**	16	**16**	14

Significant Actuarial Assumptions (Weighted Average)

Discount Rate

The discount rate assumption is based on an interest rate curve that represents the yields on corporate AA bonds. Short-term maturities are obtained using a curve based on observed data from corporate AA bonds. Long-term maturities are obtained using a curve based on observed data and extrapolated data.

In order to measure the pension plan and other post-employment plan obligation, the vested benefits that the Bank expects to pay in each future period are discounted to the measurement date using the spot rate associated with each of the respective periods based on the yield curve derived using the above methodology. The sum of discounted benefit amounts represents the defined benefit obligation. An average discount rate that replicates this obligation is then computed.

To better reflect current service cost, a separate discount rate was determined to account for the timing of future benefit payments associated with the additional year of service to be earned by the plan's active participants. Since these benefits are, on average, being paid at a later date than the benefits already earned by participants as a whole (i.e., longer duration), this method results in the use of a generally higher discount rate for calculating current service cost than that used to measure obligations where the yield curve is positively sloped. The methodology used to determine this discount rate is the same as the one used to establish the discount rate for measuring the obligation.

Other Assumptions

For measurement purposes, the estimated annual growth rate for health care costs was 5.77% for 2016 (5.90% for 2015). Based on the assumption retained, this rate is expected to decrease gradually to 2.97% in 2034 and remain steady thereafter.

The mortality assumption is a determining factor when measuring the defined benefit obligation. Determining the expected benefit payout period is based on best estimate assumptions regarding mortality. Mortality tables are reviewed at least once a year, and the assumptions made are in accordance with accepted actuarial practice. New results regarding the plans are reviewed and used in calculating best estimates of future mortality.

As at October 31

	Pension plans		Other post-employment benefit plans	
	2016	2015	**2016**	2015
Defined benefit obligation				
Discount rate	**3.60 %**	4.40 %	**3.60 %**	4.40 %
Rate of compensation increase	**3.00 %**	3.00 %	**3.00 %**	3.00 %
Health care cost trend rate			**5.77 %**	5.90 %
Life expectancy *(in years)* at 65 for a participant currently at				
Age 65				
Men	**21.1**	21.1	**21.1**	21.1
Women	**23.5**	23.4	**23.5**	23.4
Age 45				
Men	**22.2**	22.1	**22.2**	22.1
Women	**24.5**	24.4	**24.5**	24.4

Year ended October 31

	Pension plans		Other post-employment benefit plans	
	2016	2015	**2016**	2015
Pension plan expense				
Discount rate – Current service	**4.75 %**	4.60 %	**4.40 %**	4.60 %
Discount rate – Interest expense (income), net	**4.40 %**	4.35 %	**4.75 %**	4.35 %
Rate of compensation increase	**3.00 %**	3.00 %	**3.00 %**	3.00 %
Health care cost trend rate			**5.77 %**	5.90 %
Life expectancy *(in years)* at 65 for a participant currently at				
Age 65				
Men	**21.1**	21.0	**21.1**	21.0
Women	**23.4**	23.4	**23.4**	23.4
Age 45				
Men	**22.1**	22.1	**22.1**	22.1
Women	**24.4**	24.4	**24.4**	24.4

NOTE 24 – EMPLOYEE BENEFITS – PENSION PLANS AND OTHER POST-EMPLOYMENT BENEFITS (cont.)

Sensitivity of Significant Assumptions for 2016

The following table shows the potential impacts of changes to key assumptions on the defined benefit obligation of the pension plans and other post-employment benefit plans as at October 31, 2016. These impacts are hypothetical and should be interpreted with caution as changes in each significant assumption may not be linear.

	Pension plans	Other post-employment benefit plans
	Change in the obligation	Change in the obligation
Impact of a 0.25% increase in the discount rate	(160)	(8)
Impact of a 0.25% decrease in the discount rate	171	8
Impact of a 0.25% increase in the rate of compensation increase	40	1
Impact of a 0.25% decrease in the rate of compensation increase	(39)	(1)
Impact of a 1.00% increase in the health care cost trend rate		11
Impact of a 1.00% decrease in the health care cost trend rate		(9)
Impact of an increase in the age of participants by one year	(94)	(2)
Impact of a decrease in the age of participants by one year	92	2

Projected Benefit Payments

Year ended October 31

	Pension plans	Other post-employment benefit plans
2017	127	9
2018	127	9
2019	127	9
2020	129	9
2021	137	9
2022 to 2026	792	45

NOTE 25 – INCOME TAXES

The Bank's income tax expense reported in the consolidated financial statements is as follows.

Year ended October 31	2016	2015
Consolidated Statement of Income		
Current taxes		
Current year	378	231
Prior period adjustments	(17)	(5)
	361	226
Deferred taxes		
Origination and reversal of temporary differences	(150)	36
Prior period adjustments	14	(28)
	(136)	8
	225	234
Consolidated Statement of Changes in Equity		
Share issuance expense and other	(4)	(3)
Consolidated Statement of Comprehensive Income		
Remeasurements of pension plans and other post-employment benefit plans	(94)	23
Other	(13)	(72)
	(107)	(49)
Income taxes	114	182

The breakdown of the income tax expense is as follows.

Year ended October 31	2016	2015
Current taxes	352	137
Deferred taxes	(238)	45
	114	182

The temporary differences and tax loss carryforwards resulting in deferred tax assets and liabilities are as follows.

	As at October 31		Year ended October 31		Year ended October 31	
	Consolidated Balance Sheet[1]		Consolidated Statement of Income[1]		Consolidated Statement of Comprehensive Income	
	2016	2015	2016	2015	2016	2015
Deferred tax assets						
Allowances for credit losses	159	105	54	(1)	–	–
Deferred charges	241	188	53	10	–	–
Defined benefit liability – Pension plans	102	14	–	(22)	88	–
Defined benefit liability – Other post-employment benefit plans	58	50	10	1	(2)	(1)
Deferred revenue	33	36	(3)	4	–	–
Tax loss carryforwards	18	4	14	2	–	–
Other items[2]	48	54	(10)	31	–	(14)
	659	451	118	25	86	(15)
Deferred tax liabilities						
Premises and equipment and intangible assets[3]	(177)	(155)	(22)	(23)	–	–
Defined benefit asset – Pension plans	(70)	(71)	(7)	27	8	(22)
Investments in associates	(43)	(65)	22	5	–	(1)
Other items	(24)	(53)	25	(42)	4	(2)
	(314)	(344)	18	(33)	12	(25)
Net deferred tax assets (liabilities)	345	107	136	(8)	98	(40)

(1) As at and for the year ended October 31, 2015, certain amounts have been revised from those previously reported to reflect the presentation adopted as at October 31, 2016.
(2) As at October 31, 2016, the amount on the Consolidated Balance Sheet includes $4 million in deferred tax assets related to share issuance costs ($3 million as at October 31, 2015) presented in *Retained earnings* on the Consolidated Statement of Changes in Equity.
(3) As at October 31, 2015, the amount on the Consolidated Balance Sheet includes $4 million in deferred tax liabilities related to intangible assets acquired during the TD Waterhouse Institutional Services acquisition that had no impact on the Consolidated Statement of Comprehensive Income.

NOTE 25 – INCOME TAXES (cont.)

Net deferred tax assets are included in *Other assets* and net deferred tax liabilities are included in *Other liabilities*.

As at October 31	**2016**	2015
Deferred tax assets	**402**	230
Deferred tax liabilities	**(57)**	(123)
	345	107

According to forecasts, which are based on information available on October 31, 2016, the Bank believes that it is probable that the results of future operations will generate sufficient taxable income to utilize all the deferred tax assets before they expire.

As at October 31, 2016, the total amount of temporary differences, unused tax loss carryforwards and unused tax credits for which no deferred tax asset has been recognized was $290 million ($166 million as at October 31, 2015).

As at October 31, 2016, the total amount of temporary differences related to investments in subsidiaries, associates, and joint ventures for which no deferred tax liability has been recognized was $834 million ($761 million as at October 31, 2015).

The following table provides a reconciliation of the Bank's income tax rate.

Year ended October 31	**2016**		2015	
	$	**%**	$	%
Income before income taxes	**1,481**	**100.0**	1,853	100.0
Income taxes at Canadian statutory income tax rate	**400**	**27.0**	510	27.5
Reduction in income tax rate due to				
Tax-exempt income from securities, mainly dividends from Canadian corporations	**(168)**	**(11.3)**	(236)	(12.8)
Tax rates of subsidiaries, foreign entities and associates	**3**	**0.2**	(33)	(1.8)
Other items	**(10)**	**(0.7)**	(7)	(0.3)
	(175)	**(11.8)**	(276)	(14.9)
Income taxes reported in the Consolidated Statement of Income and effective income tax rate	**225**	**15.2**	234	12.6

NOTE 26 – EARNINGS PER SHARE

Diluted earnings per share is calculated by dividing net income attributable to common shareholders by the weighted average number of common shares outstanding after taking into account the dilution effect of stock options using the treasury stock method and any gain (loss) on the redemption of preferred shares.

Year ended October 31	**2016**	2015
Basic earnings per share		
Net income attributable to the Bank's shareholders	**1,181**	1,549
Dividends on preferred shares	**61**	45
Premium paid on preferred shares redeemed for cancellation	**3**	–
Net income attributable to common shareholders	**1,117**	1,504
Weighted average basic number of common shares outstanding *(thousands)*	**337,460**	329,790
Basic earnings per share *(dollars)*	**3.31**	4.56
Diluted earnings per share		
Net income attributable to common shareholders	**1,117**	1,504
Weighted average basic number of common shares outstanding *(thousands)*	**337,460**	329,790
Adjustment to average number of common shares *(thousands)*		
Stock options[1]	**2,435**	3,349
Weighted average diluted number of common shares outstanding *(thousands)*	**339,895**	333,139
Diluted earnings per share *(dollars)*	**3.29**	4.51

(1) For the year ended October 31, 2016, the calculation of the diluted earnings per share excluded an average number of 5,730,365 options outstanding with a weighted average exercise price of $46.55 (2,829,945 options outstanding with a weighted average exercise price of $47.93 for the year ended October 31, 2015) as the exercise price of these options was greater than the average price of the Bank's common shares.

NOTE 27 – GUARANTEES, COMMITMENTS AND CONTINGENT LIABILITIES

Guarantees

The maximum potential amount of future payments represents the maximum risk of loss if there were a total default by the guaranteed parties, without consideration of recoveries under recourse provisions, insurance policies or from collateral held or pledged. The maximum potential amount of future payments for significant guarantees issued by the Bank is presented in the following table.

As at October 31	2016	2015
Letters of guarantee	3,125	3,025
Backstop liquidity, credit enhancement facilities and other	5,969	5,128
Securities lending	982	1,461

Letters of Guarantee

In the normal course of business, the Bank issues letters of guarantee. These letters of guarantee represent irrevocable commitments that the Bank will make payments in the event that a client cannot meet its financial obligations to third parties. The Bank's policy for requiring collateral security with respect to letters of guarantee is similar to that for loans. Generally, the term of these letters of guarantee is less than two years. The collective allowance on non-impaired loans covers all credit risks, including those relating to letters of guarantee. As at October 31, 2016 and 2015, no amount has been recorded on the Consolidated Balance Sheet with respect to these letters of guarantee.

Backstop Liquidity and Credit Enhancement Facilities

Facilities to Multi-Seller Conduits

The Bank administers multi-seller conduits that purchase financial assets from clients and finance those purchases by issuing asset-backed commercial paper. The Bank provides backstop liquidity facilities to these multi-seller conduits. As at October 31, 2016, the notional amount of the global-style backstop liquidity facilities totalled $2.9 billion ($2.3 billion as at October 31, 2015), representing the total amount of the commercial paper outstanding.

These backstop liquidity facilities can be drawn if the conduits are unable to access the commercial paper market, even if there is no general market disruption. These facilities have terms of less than one year and can be periodically renewed. The terms and conditions of these backstop liquidity facilities do not require the Bank to advance money to the conduits if the conduits are insolvent or involved in bankruptcy proceedings or to fund non-performing assets beyond the amount of the available credit enhancements. The backstop liquidity facilities provided by the Bank have not been drawn to date.

The Bank also provides credit enhancement facilities to these multi-seller conduits. These facilities have terms of less than one year and are automatically renewable unless the Bank sends a non-renewal notice. As at October 31, 2016 and 2015, the committed notional value for these facilities was $30 million. To date, the credit enhancement facilities provided by the Bank have not been drawn.

The maximum risk of loss for the Bank cannot exceed the total amount of commercial paper outstanding, i.e., $2.9 billion as at October 31, 2016 ($2.3 billion as at October 31, 2015). As at October 31, 2016, the Bank held $4 million ($22 million as at October 31, 2015) of this commercial paper and, consequently, the maximum potential amount of future payments was $2.9 billion ($2.2 billion as at October 31, 2015).

CDCC Overnight Liquidity Facility

Canadian Derivatives Clearing Corporation (CDCC) acts as a central clearing counterparty for multiple financial instrument transactions in Canada. Certain fixed-income clearing members of CDCC have provided an equally shared committed and uncommitted global overnight liquidity facility for the purpose of supporting CDCC in its clearing activities of securities purchased under reverse repurchase agreements or sold under repurchase agreements. The objective of this facility is to maintain sufficient liquidity in the event of a clearing member's default. As a fixed-income clearing member providing support to CDCC, the Bank provides a liquidity facility. As at October 31, 2016, the notional amount of the overnight uncommitted liquidity facility amounted to $2.3 billion ($2.0 billion as at October 31, 2015). As at October 31, 2016 and 2015, no amount had been drawn.

NOTE 27 – GUARANTEES, COMMITMENTS AND CONTINGENT LIABILITIES (cont.)

Securities Lending

Under securities lending agreements the Bank has entered into with certain clients who have entrusted it with the safekeeping of their securities, the Bank lends the securities to third parties and indemnifies its clients in the event of loss. In order to protect itself against any contingent loss, the Bank obtains, as security from the borrower, a cash amount or extremely liquid marketable securities with a fair value greater than that of the securities loaned. No amount has been recognized on the Consolidated Balance Sheet with respect to potential indemnities resulting from securities lending agreements.

Other Indemnification Agreements

In the normal course of business, including securitization transactions and discontinuances of businesses and operations, the Bank enters into numerous contractual agreements under which it undertakes to compensate the counterparty for costs incurred as a result of litigation, changes in laws and regulations (including tax legislation), claims with respect to past performance, incorrect representations or the non-performance of certain restrictive covenants. The Bank also undertakes to indemnify any person acting as a director or officer or performing a similar function within the Bank or one of its subsidiaries or another entity, at the request of the Bank, for all expenses incurred by that person in proceedings or investigations to which he or she is party in that capacity. Moreover, as a member of a securities transfer network and pursuant to the membership agreement and the regulations governing the operation of the network, the Bank granted a movable hypothec to the network that can be used in the event another member fails to meet its contractual obligations. The durations of the indemnification agreements vary according to circumstance; as at October 31, 2016 and 2015, given the nature of the agreements, the Bank is unable to make a reasonable estimate of the maximum potential liability it could be required to pay to counterparties. No amount has been recorded on the Consolidated Balance Sheet with respect to these agreements.

Master Asset Vehicles

Margin Funding Facility

The Bank has committed to contribute $800 million ($821 million as at October 31, 2015) to a margin funding facility related to the MAV conduits in order to finance potential collateral calls. As at October 31, 2016 and 2015, no amount had been advanced by the Bank.

Commitments

Credit Instruments

In the normal course of business, the Bank enters into various off-balance-sheet commitments. The credit instruments used to meet the financing needs of its clients represent the maximum amount of additional credit the Bank could be obligated to extend if the commitments were fully drawn.

As at October 31	2016	2015
Letters of guarantee[1]	3,125	3,025
Documentary letters of credit[2]	136	48
Credit card receivables[3]	7,187	6,578
Commitments to extend credit[3]	47,815	45,545

(1) See the Letters of Guarantee heading on page 175.

(2) Documentary letters of credit are documents issued by the Bank and used in international trade to enable a third party to draw drafts on the Bank up to an amount established under specific terms and conditions; these instruments are collateralized by the delivery of the goods to which they are related.

(3) Credit card receivables and commitments to extend credit represent the undrawn portions of credit authorizations granted in the form of loans, acceptances, letters of guarantee and documentary letters of credit. The Bank is required at all times to make the undrawn portion of the credit authorization available, subject to certain conditions.

Financial Assets Received as Collateral

As at October 31, 2016, the fair value of financial assets received as collateral that the Bank was authorized to sell or repledge was $71.3 billion ($68.9 billion as at October 31, 2015). These financial assets received as collateral consist of securities related to securities financing and derivative transactions as well as securities purchased under reverse repurchase agreements and securities borrowed.

Other Commitments

The Bank acts as an investor in investment banking activities where it enters into agreements to finance external private equity funds and investments in equity and debt securities at market value at the time the agreements are signed. In connection with these activities, the Bank has commitments to invest up to $37 million as at October 31, 2016 ($32 million as at October 31, 2015).

Pledged Assets

In the normal course of business, the Bank pledges securities and other assets as collateral. A breakdown of encumbered assets pledged as collateral is provided in the following table. These transactions are concluded in accordance with standard terms and conditions for such transactions.

As at October 31	2016	2015
Assets pledged to		
Direct clearing organizations[1]	563	460
Assets pledged in relation to		
Derivative financial instrument transactions	2,419	1,870
Borrowing, securities lending and securities sold under reverse repurchase agreements	43,390	37,104
Securitization transactions	23,457	23,017
Covered bonds[2]	7,296	8,577
Other	125	123
Total	77,250	71,151

(1) Includes assets pledged as collateral for Large Value Transfer System (LVTS) activities.
(2) The Bank established two covered bond programs. For additional information, see Notes 13 and 28.

Contingent Liabilities

Litigation

In the normal course of business, the Bank and its subsidiaries are involved in various claims relating, among other matters, to loan portfolios, investment portfolios and supplier agreements, including court proceedings, investigations or claims of a regulatory nature, class actions or other legal remedies of varied natures. The recent developments in the main legal proceeding involving the Bank are as follows:

Watson

In 2011, a class action was filed in the Supreme Court of British Columbia against Visa Corporation Canada (Visa), MasterCard International Incorporated (MasterCard) as well as National Bank and a number of other financial institutions. The plaintiff is alleging that the credit card networks and financial institutions engaged in a price-fixing system to increase or maintain the fees paid by merchants on Visa and MasterCard transactions. In so doing, they would have been in breach of the *Competition Act.* An unspecified amount of compensatory and punitive damages is being claimed. Following a decision on March 27, 2014, the Court certified the class action in part. The decision was appealed. On August 19, 2015, the Court of Appeal for British Columbia issued a judgment and concluded that the class action be allowed to proceed while granting certain changes. The judgment was not appealed to the Supreme Court of Canada. Similar actions were filed in four other jurisdictions.

It is impossible to determine the outcome of the claims instituted or which may be instituted against the Bank and its subsidiaries. The Bank estimates, based on the information at its disposal, that while the amount of contingent liabilities pertaining to these claims, taken individually or in the aggregate, could have a material impact on the Bank's consolidated operating income for a particular period, it would not have a material adverse impact on the Bank's consolidated financial position.

NOTE 28 – STRUCTURED ENTITIES

A structured entity is an entity created to accomplish a narrow and well-defined objective and is designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate solely to administrative tasks and the relevant activities are directed by means of contractual arrangements. Structured entities are assessed for consolidation in accordance with the accounting treatment described in Note 1. The Bank's maximum exposure to loss resulting from its interests in these structured entities consists primarily of the investments in these entities, the fair value of derivative financial instrument contracts entered into with them, and the backstop liquidity and credit enhancement facilities granted to certain structured entities.

In the normal course of business, the Bank may enter into financing transactions with third-party structured entities, including commercial loans, reverse repurchase agreements, prime brokerage margin lending, and similar collateralized lending transactions. While such transactions expose the Bank to the counterparty credit risk of the structured entities, this exposure is mitigated by the collateral related to these transactions. The Bank typically has neither power nor significant variable returns resulting from financing transactions with structured entities and does not consolidate such entities. Financing transactions with third-party-sponsored structured entities are included on the Bank's consolidated financial statements and are not included in the table accompanying this note.

Non-Consolidated Structured Entities

Multi-Seller Conduits

The Bank administers multi-seller conduits that purchase financial assets from clients and finance those purchases by issuing commercial paper backed by the assets acquired. Clients use these multi-seller conduits to diversify their funding sources and reduce borrowing costs, while continuing to manage the financial assets and providing some amount of first-loss protection. Notes issued by the conduits and held by third parties provide additional credit loss protection. The Bank acts as a financial agent and provides these conduits with administrative and transaction structuring services as well as backstop liquidity and credit enhancement facilities under the commercial paper program. These facilities are presented and described in Note 27. The Bank has concluded derivative financial instrument contracts with these conduits, the fair value of which is presented on the Bank's Consolidated Balance Sheet. Although the Bank has the ability to direct the relevant activities of these conduits, it cannot use its power to affect the amount of the returns it obtains, as it acts as an agent. Consequently, the Bank does not control these conduits and does not consolidate them.

Master Asset Vehicles (MAV)

The MAVs are structured entities created for the purpose of grouping the restructured notes stemming from asset-backed commercial paper held by Canadian corporate investors. For additional information, see Note 6. The Bank holds economic interests in MAVs in the form of restructured notes and the margin funding facility. The Bank does not have the ability to direct the relevant activities of the MAVs. Consequently, it does not control these MAVs and does not consolidate them.

Investment Funds

The Bank enters into derivative or other financial instrument contracts with third parties to provide them with the desired exposure to certain investment funds. The Bank economically hedges the risks related to these derivatives by investing in those investment funds. The Bank can also hold economic interests in certain investment funds as part of its investing activities. The Bank does not control the funds where its holdings are not significant as in these circumstances, the Bank either acts only as an agent or does not have any power over the relevant activities. In both cases, it does not have significant exposure to the variable returns of the funds. Therefore, the Bank does not consolidate these funds.

Private Investments

As part of its investment banking operations, the Bank invests in several limited liability partnerships and other incorporated entities. These investment companies in turn invest in operating companies with a view to reselling these investments at a profit over the medium or long term. The Bank does not intervene in the operations of these entities; its only role is that of an investor. Consequently, it does not control these companies and does not consolidate them.

Asset-Backed Structured Entities

The Bank invested in certain asset-backed structured entities. The underlying assets consist of automobile loans, equipment loans and leases. The Bank does not have the ability to direct the relevant activities of these structured entities and has no exposure to their variable returns, other than the right to receive interest income and dividend income from its investments. Consequently, the Bank does not control these structured entities and does not consolidate them.

NBC Capital Trust

The Bank created NBC Capital Trust (the Trust) for its funding needs and for capital management. The securities issued by this trust qualified as innovative capital instruments and were therefore eligible as additional Tier 1 capital. The gross proceeds from the securities issued by this trust were used to acquire a deposit note from the Bank. The Bank also held all of the trust's equity and committed to lend it the liquidity required in the normal course of business. Although the Bank had the ability to direct the relevant activities of the Trust, it was not exposed to nor did it have the rights to variable returns since the Trust's primary asset was a deposit note issued by the Bank. Consequently, the Bank did not control the Trust and did not consolidate it. The Trust was terminated on June 30, 2016. For additional information, see Note 13.

The following table presents the carrying amounts of the assets and liabilities relating to the Bank's interests in non-consolidated structured entities, the Bank's maximum exposure to loss from these interests, as well as the total assets of these structured entities. The structured entity Canada Housing Trust is not presented. For additional information, see Note 8.

						As at October 31, 2016
	Multi-seller conduits[(1)]	**Master asset vehicles[(2)]**	**Investment funds[(3)]**	**Private investments[(4)]**	**Asset-backed structured entities[(5)]**	**NBC Capital Trust[(6)]**
Assets on the Consolidated Balance Sheet						
Securities at fair value through profit or loss	4	613	31	–	–	–
Available-for-sale securities	–	6	55	97	17	–
Held-to-maturity securities	–	–	–	–	477	–
Derivative financial instruments	6	–	–	–	–	–
Other assets	–	–	–	–	9	–
	10	619	86	97	503	–
As at October 31, 2015	33	655	180	95	114	–
Liabilities on the Consolidated Balance Sheet						
Deposits – Business and government	–	–	–	–	–	–
As at October 31, 2015	–	–	–	–	–	229
Maximum exposure to loss						
Securities, derivative financial instruments and other assets	10	619	86	97	503	–
Liquidity and credit enhancement facilities	2,873	–	–	–	–	–
Margin funding facility	–	800	–	–	–	–
	2,883	1,419	86	97	503	–
As at October 31, 2015	2,266	1,476	180	95	114	–
Total assets of the structured entities	2,912	–	303	2,650	813	–
As at October 31, 2015	2,283	–	1,243	3,648	144	234

(1) The main underlying assets, located in Canada, are residential mortgages, automobile loans, automobile inventory financings, and other receivables. As at October 31, 2016, the notional committed amount of the global-style liquidity facilities totalled $2.9 billion ($2.3 billion as at October 31, 2015), representing the total amount of commercial paper outstanding. The Bank also provides series-wide credit enhancement facilities for a notional committed amount of $30 million ($30 million as at October 31, 2015). The maximum exposure to loss cannot exceed the amount of commercial paper outstanding. As at October 31, 2016, the Bank held $4 million in commercial paper ($22 million as at October 31, 2015) and, consequently, the maximum potential amount of future payments as at October 31, 2016 is limited to $2.9 billion ($2.2 billion as at October 31, 2015), which represents the undrawn liquidity and credit enhancement facilities.

(2) See the Master Asset Vehicles section in Note 6. The total amount outstanding of restructured notes of the MAV conduits was $8.6 billion as at October 31, 2016 ($9.3 billion as at October 31, 2015). The undrawn margin funding facility amounted to $800 million as at October 31, 2016 ($821 million as at October 31, 2015).

(3) The underlying assets are various financial instruments and are presented on a net asset basis. Certain investment funds are in a trading portfolio.

(4) The underlying assets are private investments. The amount of total assets of the structured entities corresponds to the amount for the most recent available period.

(5) The underlying assets are automobile loans, equipment loans and leases.

(6) The underlying asset is a deposit note from the Bank and that was redeemed by the Bank on June 30, 2016. NBC Capital Trust was terminated on the same day. For additional information, see Note 13.

NOTE 28 – STRUCTURED ENTITIES (cont.)

Consolidated Structured Entities

Securitization Entity for the Bank's Credit Card Receivables

In 1998, the Bank established Canadian Credit Card Trust (CCCT) to securitize its credit card receivables on a revolving basis and used the entity for capital management and funding purposes. On April 2, 2015, Canadian Credit Card Trust II (CCCT II) was established in order to continue the securitization program of CCCT. On April 10, 2015, all of CCCT's assets were transferred to CCCT II and all of its liabilities were assumed by CCCT II. CCCT was subsequently dissolved as of November 23, 2015.

The Bank provides first-loss protection against the losses since it retains the excess spread from the portfolio of sold receivables. The excess spread represents the residual net interest income after all the expenses related to this structure have been paid. The Bank also provides second-loss protection as it holds subordinated notes issued by CCCT II. In addition, the Bank acts as an administrative agent and servicer and as such is responsible for the daily administration and management of CCCT II's credit card receivables. The Bank therefore has the ability to direct the relevant activities of CCCT II and can exercise its power to affect the amount of returns it obtains. Consequently, the Bank controls CCCT II and consolidates it.

National Bank Hedge Fund Managed Accounts (Innocap Platform)

Innocap Investment Management Inc. (Innocap), a company under joint control, offers hedge fund account programs for fund sponsors seeking a platform that gives them a high degree of transparency and leading-edge tools to manage liquidity and control assets and risk. The Bank can hold economic interests in certain hedge funds of the platform and consolidates those funds over which it has the ability to direct the relevant activities and in which it can exercise its power to affect the amount of returns it obtains.

Covered Bond Guarantors

NBC Covered Bond Guarantor (Legislative) Limited Partnership

In December 2013, the Bank established the covered bond legislative program under which covered bonds are issued. It therefore created NBC Covered Bond Guarantor (Legislative) Limited Partnership (the Guarantor) to guarantee payment of the principal and interest owed to the bondholders. The Bank sold uninsured residential mortgages to the Guarantor and granted it loans to facilitate the acquisition of these assets. The Bank acts as manager of the partnership and has decision-making authority over its relevant activities in accordance with the contractual terms governing the covered bond legislative program. In addition, the Bank is able, in accordance with the contractual terms governing the covered bond legislative program, to affect the variable returns of the partnership, which are directly related to the return on the mortgage loan portfolio and the interest on the loans from the Bank. Consequently, the Bank controls the partnership and consolidates it.

NBC Covered Bond Guarantor Limited Partnership

In January 2011, the Bank established the structured covered bond program. It therefore created NBC Covered Bond Guarantor Limited Partnership (the Guarantor) to guarantee payment of the principal and interest owed to the bondholders. The Bank sold insured residential mortgages to the Guarantor and granted it a demand loan to facilitate the acquisition of these assets. The Bank acted as manager of the partnership and had decision-making authority over its relevant activities in accordance with the contractual terms governing the structured covered bond program. In addition, the Bank was able, in accordance with the contractual terms governing the structured covered bond program, to affect the variable returns of the partnership, which are directly related to the return on the mortgage loan portfolio and the interest on the loans from the Bank. Consequently, the Bank controlled the partnership and consolidated it. All of the covered bonds have matured since October 19, 2016, and no further covered bonds will be issued under the structured covered bond program.

Investment Funds

The Bank enters into derivative or other financial instrument contracts with third parties to provide them with the desired exposure to certain investment funds. The Bank economically hedges the risks related to these derivatives by investing in those investment funds. The Bank can also hold economic interests in certain investment funds as part of its investing activities. The Bank controls the relevant activities of these funds through its involvement as an investor and its significant exposure to their variable returns. Therefore, the Bank consolidates these funds.

NBC Asset Trust

The Bank created NBC Asset Trust for its funding and capital management needs. The securities issued by this trust constitute innovative capital instruments and are eligible as additional Tier 1 capital, but because these instruments do not satisfy the non-viability contingent capital requirements, they are to be phased out at a rate of 10% per year between 2013 and 2022. For additional information, see Note 20. The issuance proceeds were used to acquire, from the Bank, residential mortgage loans. The Bank continues to administer these loans and is committed to repurchase from NBC Asset Trust the capital balance and unpaid accrued interest on any loan that is more than 90 days past due. The Bank also manages day-to-day operations and holds the special voting securities of the trust. After the distribution has been paid to the holders of the trust capital securities, the Bank, as the sole holder of the special trust securities, is entitled to receive the balance of net residual funds. Therefore, the Bank has the ability to direct the relevant activities of NBC Asset Trust and can use its power to affect the amount of returns it obtains. Consequently, the Bank controls this trust and consolidates it.

Third-Party Structured Entities

In 2015, the Bank, through one of its subsidiaries, acquired interests in portions of a third-party structured entity. Each portion of the structured entity is a deemed separate entity since all of the following criteria are met: 1) specified assets of the entity are the only source of payment for specified liabilities of (or specified other interests in) the entity; 2) parties other than those with the specified liabilities do not have rights or obligations related to the specified assets or to residual cash flows from those assets. The Bank controls and therefore consolidates the deemed separate entities, as it has the ability to direct their relevant activities through its kick-out rights over the servicer of their assets and because it is also exposed to the variability of their returns.

The following table presents the Bank's investments and other assets in the consolidated structured entities as well as the total assets of these entities.

As at October 31	2016		2015	
	Investments and other assets	**Total assets[1]**	Investments and other assets	Total assets[1]
Consolidated structured entities				
Securitization entity for the Bank's credit card receivables[2][3]	**343**	**1,882**	339	1,649
National Bank hedge fund managed accounts (Innocap platform)[3][4]	**–**	**–**	23	23
Investment funds[5]	**156**	**199**	410	460
Covered bonds[6]	**13,908**	**14,176**	12,722	13,099
Building[7]	**66**	**59**	70	63
NBC Asset Trust[8]	**1,350**	**2,121**	1,125	1,900
Third-party structured entities[9]	**867**	**867**	1,395	1,395
	16,690	**19,304**	16,084	18,589

(1) There are restrictions that stem mainly from regulatory requirements, corporate or securities laws and contractual arrangements that limit the ability of certain consolidated structured entities to transfer funds to the Bank.
(2) The underlying assets are credit card receivables.
(3) The Bank's investment is presented net of third-party holdings.
(4) The underlying assets are various financial instruments (trading portfolio). The total assets of the Innocap platform are presented on a net asset basis.
(5) The underlying assets are various financial instruments and are presented on a net asset basis. Certain investment funds are in a trading portfolio.
(6) The covered bonds issued under the structured covered bond program have matured since October 19, 2016. For the covered bonds issued under the covered bond legislative program, the underlying assets are uninsured residential mortgage loans of the Bank. The average maturity of these underlying assets is three years. As at October 31, 2016, the total amount of transferred mortgage loans was $13.9 billion ($12.7 billion as at October 31, 2015), and the total amount of covered bonds of $6.7 billion was recognized in *Deposits – Business and government* on the Consolidated Balance Sheet ($7.9 billion as at October 31, 2015). See Note 13.
(7) The underlying asset is a building located in Canada.
(8) The underlying assets are insured and uninsured residential mortgage loans of the Bank. As at October 31, 2016, insured loans amounted to $148 million ($188 million as at October 31, 2015). The average maturity of the underlying assets is two years. See Note 20.
(9) The underlying assets consist of equipment leased under operating leases.

NOTE 29 – RELATED PARTY DISCLOSURES

In the normal course of business, the Bank provides various banking services to related parties and enters into contractual agreements and other operations with related parties. The Bank considers the following to be related parties.

– Its key officers and directors and members of their immediate family, i.e., spouses and children under 18 living in the same household.
– Entities over which its key officers and directors and their immediate family have control and/or significant influence through their significant voting power.
– The Bank's associates and joint ventures.
– The Bank's pension plans (for additional information, see Note 24).

According to the established definition, the Bank's key officers are those persons having authority and responsibility for planning, directing and controlling the Bank's activities, directly or indirectly.

Related Party Transactions

As at October 31

	Key officers and directors[1]		Related entities	
	2016	2015	**2016**	2015
Assets				
Mortgage loans and other loans[2]	**53**	47	**789** [3]	536 [3]
Other	**–**	–	**43**	40
Liabilities				
Deposits	**42**	41	**628** [4]	1,687 [4]
Other	**–**	–	**19**	17

(1) As at October 31, 2016, key officers, directors and their immediate family members were holding $32 million of the Bank's common and preferred shares ($27 million as at October 31, 2015).
(2) The Bank did not record any allowance or provisions for credit losses in fiscal years 2016 and 2015.
(3) As at October 31, 2016, mortgage loans and other loans consisted of: (i) $190 million in loans to the Bank's associates and joint ventures ($89 million as at October 31, 2015) and (ii) $599 million in loans to entities whose key officers, directors and their immediate family members exercise control or significant influence through significant voting power ($447 million as at October 31, 2015).
(4) As at October 31, 2016, deposits consisted of: (i) $321 million in deposits from the Bank's associates and joint ventures ($1,512 million as at October 31, 2015), and (ii) $307 million in deposits from entities whose key officers, directors and their immediate family members exercise control or significant influence through significant voting power ($175 million as at October 31, 2015).

The contractual agreements and other transactions with related entities as well as with directors and key officers are entered into under conditions similar to those offered to non-related third parties. These agreements did not have a significant impact on the Bank's results. The Bank also offers a deferred stock unit plan to directors who are not Bank employees. For additional information, see Notes 9, 23 and 28.

During fiscal 2015, the Bank recorded a gain of $37 million ($27 million net of income taxes) upon a $54 million disposal of restructured notes of the MAV III conduits to one of its pension plans.

Compensation of Key Officers and Directors

Year ended October 31	**2016**	2015[1]
Compensation and other short-term and long-term benefits	**19**	21
Share-based payments	**19**	17

(1) For the year ended October 31, 2015, certain amounts have been revised from those previously reported.

Principal Subsidiaries of the Bank[1]

			As at October 31, 2016	
Name	Business activity	Principal office address	Voting shares[2]	Investment at carrying value
Canada and United States				
National Bank Acquisition Holding Inc.	Holding company	Montreal, Canada	100%	772
National Bank Group Inc.	Holding company	Montreal, Canada	100%	
National Bank Financial Inc.	Investment dealer	Montreal, Canada	100%	
NBCN Inc.	Investment dealer	Toronto, Canada	100%	
National Bank Financial Ltd.	Investment dealer	Montreal, Canada	100%	
NBF International Holdings Inc.	Holding company	Montreal, Canada	100%	
Credigy International Holdings Inc.	Holding company	Montreal, Canada	80%	
National Bank of Canada Financial Group Inc.	Holding company	New York, NY, United States	100%	
Credigy Ltd.	Holding company	Atlanta, GA, United States	80%	
National Bank of Canada Financial Inc.	Investment dealer	New York, NY, United States	100%	
National Bank Life Insurance Company	Insurance	Montreal, Canada	100%	
Natcan Trust Company	Trustee	Montreal, Canada	100%	238
National Bank Trust Inc.	Trustee	Montreal, Canada	100%	195
National Bank Realty Inc.	Real estate	Montreal, Canada	100%	13
National Bank Investments Inc.	Mutual funds dealer	Montreal, Canada	100%	585
National Bank Direct Brokerage Inc.	Investment dealer	Montreal, Canada	100%	38
NatBC Holding Corporation	Holding company	Hollywood, FL, United States	100%	31
Natbank, National Association	Banking	Hollywood, FL, United States	100%	
Other countries				
Natcan Global Holdings Ltd.	Holding company	Sliema, Malta	100%	22
NBC Global Finance Limited	Investment services	Dublin, Ireland	100%	
NBC Financial Markets Asia Limited	Investment dealer	Hong Kong, China	100%	1
Advanced Bank of Asia Limited	Commercial bank	Phnom Penh, Cambodia	90%	252
ATA IT Ltd.	Information technology	Bangkok, Thailand	100%	3

(1) Excluding consolidated structured entities. See Note 28.
(2) The Bank's percentage of voting rights in these subsidiaries.

NOTE 30 – MANAGEMENT OF THE RISKS ASSOCIATED WITH FINANCIAL INSTRUMENTS

The Bank is exposed to credit risk, market risk, liquidity risk and financing risk. The Bank's objectives, policies and procedures for managing risk and the risk measurement methods are presented in the Risk Management section of the MD&A. Text in grey shading and tables identified with an asterisk (*) in the Risk Management section of the MD&A are an integral part of these consolidated financial statements.

Residual Contractual Maturities of Balance Sheet Items and Off-Balance-Sheet Commitments

The following tables present balance sheet items and off-balance-sheet commitments by residual contractual maturity as at October 31, 2016 and 2015. The information gathered from this maturity analysis is a component of liquidity and funding management. However, this maturity profile does not represent how the Bank manages its interest rate risk nor its liquidity risk and funding needs. The Bank considers factors other than contractual maturity in the assessment of liquid assets or in determining expected future cash flows.

In the normal course of business, the Bank enters into various off-balance-sheet commitments. The credit instruments used to meet the funding needs of its clients represent the maximum amount of additional credit the Bank could be obligated to extend if the commitments were fully drawn.

The Bank also has future minimum commitments under leases for premises as well for other contracts, mainly contracts for outsourced information technology services. Most of the lease commitments are related to operating leases.

NOTE 30 – MANAGEMENT OF THE RISKS ASSOCIATED WITH FINANCIAL INSTRUMENTS (cont.)

Assets

									As at October 31, 2016	
	1 month or less	Over 1 month to 3 months	Over 3 months to 6 months	Over 6 months to 9 months	Over 9 months to 12 months	Over 1 year to 2 years	Over 2 years to 5 years	Over 5 years	No specified maturity	Total
Cash and deposits with financial institutions	5,487	199	21	22	7	–	–	–	2,447	8,183
Securities										
At fair value through profit or loss	1,066	1,207	2,646	702	935	4,800	7,864	5,641	21,103	45,964
Available-for-sale	108	177	134	76	63	365	7,553	5,580	552	14,608
Held-to-maturity	–	–	–	–	472	30	3,263	204	–	3,969
	1,174	1,384	2,780	778	1,470	5,195	18,680	11,425	21,655	64,541
Securities purchased under reverse repurchase agreements and securities borrowed	4,842	2,320	2,846	1,532	10	456	–	–	1,942	13,948
Loans and acceptances[1]										
Residential mortgage	874	1,155	1,607	2,389	1,839	7,764	32,034	1,193	13	48,868
Personal and credit card	873	413	592	724	570	2,235	8,797	2,041	17,719	33,964
Business and government	6,266	2,116	1,937	2,321	1,731	4,684	8,578	2,275	7,778	37,686
Customers' liability under acceptances	5,633	718	90	–	–	–	–	–	–	6,441
Allowances for credit losses									(781)	(781)
	13,646	4,402	4,226	5,434	4,140	14,683	49,409	5,509	24,729	126,178
Other										
Derivative financial instruments	569	730	457	293	219	838	2,628	4,682	–	10,416
Due from clients, dealers and brokers[1]									843	843
Purchased receivables									1,858	1,858
Investments in associates and joint ventures									645	645
Premises and equipment									1,338	1,338
Goodwill									1,412	1,412
Intangible assets									1,140	1,140
Other assets	294	122	71	77	92	123	90	125	710	1,704
	863	852	528	370	311	961	2,718	4,807	7,946	19,356
	26,012	9,157	10,401	8,136	5,938	21,295	70,807	21,741	58,719	232,206

(1) Amounts collectible on demand are considered to have no specified maturity.

Liabilities, Equity and Off-Balance-Sheet Commitments

									As at October 31, 2016	
	1 month or less	Over 1 month to 3 months	Over 3 months to 6 months	Over 6 months to 9 months	Over 9 months to 12 months	Over 1 year to 2 years	Over 2 years to 5 years	Over 5 years	No specified maturity	Total
Deposits[(1)(2)]										
Personal	975	1,905	2,808	1,824	1,499	4,345	7,836	1,036	27,574	49,802
Business and government	4,255	1,266	1,117	587	622	1,198	2,265	881	36,818	49,009
Deposit-taking institutions	2,925	627	276	27	7	–	–	61	2,023	5,946
Unsecured senior debt	5,783	2,539	3,527	1,398	2,797	3,780	5,017	3,641	–	28,482
Covered bonds	–	–	–	–	–	1,005	3,102	2,561	–	6,668
	13,938	6,337	7,728	3,836	4,925	10,328	18,220	8,180	66,415	139,907
Other										
Acceptances	5,631	719	91	–	–	–	–	–	–	6,441
Obligations related to securities sold short[(3)]	84	201	50	41	53	586	4,652	5,629	2,911	14,207
Obligations related to securities sold under repurchase agreements and securities loaned	11,992	1,505	3,555	4,260	–	–	–	–	1,324	22,636
Derivative financial instruments	661	693	486	303	182	740	1,608	3,052	–	7,725
Due to clients, dealers and brokers[(1)]									2,699	2,699
Liabilities related to transferred receivables[(4)]	–	1,341	324	1,107	548	2,465	9,795	4,551	–	20,131
Securitization – Credit card[(5)]	424	–	–	–	–	–	873	–	–	1,297
Other liabilities – Other items[(1)(5)]	470	296	127	19	77	43	88	197	2,732	4,049
	19,262	4,755	4,633	5,730	860	3,834	17,016	13,429	9,666	79,185
Subordinated debt	–	–	1,003	–	–	–	–	9	–	1,012
Equity									12,102	12,102
	33,200	11,092	13,364	9,566	5,785	14,162	35,236	21,618	88,183	232,206
Off-balance-sheet commitments										
Letters of guarantee and documentary letters of credit	145	614	288	286	282	693	741	212	–	3,261
Credit card receivables[(6)]									7,187	7,187
Backstop liquidity and credit enhancement facilities[(7)]	–	2,056	3,898	15	–	–	–	–	–	5,969
Commitments to extend credit[(8)]	1,149	1,293	1,012	1,927	1,685	8,525	10,565	550	21,109	47,815
Lease commitments and other contracts	87	169	243	236	221	718	1,526	520	–	3,720

(1) Amounts payable upon demand or notice are considered to have no specified maturity.
(2) The *Deposits* item is presented in greater detail than it is on the Consolidated Balance Sheet.
(3) Amounts are disclosed according to the remaining contractual maturity of the underlying security.
(4) These amounts mainly include liabilities related to the securitization of mortgage loans.
(5) The *Other liabilities* item is presented in greater detail than it is on the Consolidated Balance Sheet.
(6) These amounts are unconditionally revocable at the Bank's discretion at any time.
(7) In the event of payment on one of the backstop liquidity facilities, the Bank will receive as collateral government bonds in an amount up to $2.3 billion.
(8) These amounts include $21.1 billion that is unconditionally revocable at the Bank's discretion at any time.

NOTE 30 – MANAGEMENT OF THE RISKS ASSOCIATED WITH FINANCIAL INSTRUMENTS (cont.)

Assets

As at October 31, 2015

	1 month or less	Over 1 month to 3 months	Over 3 months to 6 months	Over 6 months to 9 months	Over 9 months to 12 months	Over 1 year to 2 years	Over 2 years to 5 years	Over 5 years	No specified maturity	Total
Cash and deposits with financial institutions	5,317	14	–	–	–	–	–	–	2,236	7,567
Securities										
At fair value through profit or loss	587	673	701	1,351	757	5,473	7,992	6,706	17,757	41,997
Available-for-sale	1	356	92	147	37	527	6,846	5,519	518	14,043
	588	1,029	793	1,498	794	6,000	14,838	12,225	18,275	56,040
Securities purchased under reverse repurchase agreements and securities borrowed	6,280	4,036	4,345	25	312	1,185	–	–	1,519	17,702
Loans and acceptances[1]										
Residential mortgage	1,125	1,343	2,121	3,072	2,291	6,896	25,523	872	277	43,520
Personal and credit card	336	410	743	907	750	1,795	7,334	1,844	17,814	31,933
Business and government	3,767	1,609	1,719	2,143	1,479	2,558	7,269	2,127	8,283	30,954
Customers' liability under acceptances	7,896	919	585	–	–	–	–	–	–	9,400
Allowances for credit losses									(569)	(569)
	13,124	4,281	5,168	6,122	4,520	11,249	40,126	4,843	25,805	115,238
Other										
Derivative financial instruments	520	682	550	606	208	831	2,627	4,818	–	10,842
Due from clients, dealers and brokers[1]									415	415
Purchased receivables									1,438	1,438
Investments in associates and joint ventures									831	831
Premises and equipment									1,817	1,817
Goodwill									1,277	1,277
Intangible assets									1,059	1,059
Other assets	235	226	216	118	92	110	71	–	796	1,864
	755	908	766	724	300	941	2,698	4,818	7,633	19,543
	26,064	10,268	11,072	8,369	5,926	19,375	57,662	21,886	55,468	216,090

(1) Amounts collectible on demand are considered to have no specified maturity.

Liabilities, Equity and Off-Balance-Sheet Commitments

As at October 31, 2015

	1 month or less	Over 1 month to 3 months	Over 3 months to 6 months	Over 6 months to 9 months	Over 9 months to 12 months	Over 1 year to 2 years	Over 2 years to 5 years	Over 5 years	No specified maturity	Total
Deposits[1][2]										
Personal	1,063	1,103	1,920	1,170	1,451	5,304	7,333	910	25,727	45,981
Business and government	1,463	341	423	337	62	625	1,318	879	32,331	37,779
Deposit-taking institutions	4,814	344	13	1	2	2	4	–	1,458	6,638
Unsecured senior debt	4,676	3,772	6,595	2,874	559	4,610	5,091	2,345	–	30,522
Covered bonds	–	–	–	–	2,636	–	2,419	2,855	–	7,910
	12,016	5,560	8,951	4,382	4,710	10,541	16,165	6,989	59,516	128,830
Other										
Acceptances	7,896	919	585	–	–	–	–	–	–	9,400
Obligations related to securities sold short[3]	340	1,270	207	65	327	1,521	4,579	5,933	3,091	17,333
Obligations related to securities sold under repurchase agreements and securities loaned	5,875	736	4,733	–	–	840	–	–	1,595	13,779
Derivative financial instruments	527	748	646	418	153	886	1,825	2,553	–	7,756
Due to clients, dealers and brokers[1]									1,871	1,871
Liabilities related to transferred receivables[4]	15	1,129	28	1,163	80	3,145	9,083	5,127	–	19,770
Securitization – Credit card[5]	–	–	–	–	–	424	872	–	–	1,296
Other liabilities – Other items[1][5]	442	191	133	60	74	57	368	185	1,668	3,178
	15,095	4,993	6,332	1,706	634	6,873	16,727	13,798	8,225	74,383
Subordinated debt	505	–	–	–	–	1,008	–	9	–	1,522
Equity									11,355	11,355
	27,616	10,553	15,283	6,088	5,344	18,422	32,892	20,796	79,096	216,090
Off-balance-sheet commitments										
Letters of guarantee and documentary letters of credit	6	426	120	410	371	664	864	212	–	3,073
Credit card receivables[6]									6,578	6,578
Backstop liquidity and credit enhancement facilities[7]	–	15	2,044	15	–	3,054	–	–	–	5,128
Commitments to extend credit[8]	544	1,481	802	1,793	2,246	8,046	9,215	648	20,770	45,545
Lease commitments and other contracts	76	150	221	214	208	735	1,158	812	–	3,574

(1) Amounts payable upon demand or notice are considered to have no specified maturity.
(2) The *Deposits* item is presented in greater detail than it is on the Consolidated Balance Sheet.
(3) Amounts have been disclosed according to the remaining contractual maturity of the underlying security.
(4) These amounts mainly include liabilities related to the securitization of mortgage loans.
(5) The *Other liabilities* item is presented in greater detail than it is on the Consolidated Balance Sheet.
(6) These amounts are unconditionally revocable at the Bank's discretion at any time.
(7) In the event of payment on one of the backstop liquidity facilities, the Bank will receive as collateral government bonds in an amount up to $1.8 billion.
(8) These amounts include $20.8 billion that is unconditionally revocable at the Bank's discretion at any time.

NOTE 31 – INTEREST RATE SENSITIVITY

The Bank offers a range of financial products whose cash flows are sensitive to interest rate fluctuations. Interest rate risk arises from on- and off-balance-sheet cash flow mismatches. The degree of exposure is based on the magnitude and direction of interest rate movements and on the extent of the mismatch of the maturities. Analyzing interest rate sensitivity gaps is one of the techniques used by the Bank to manage interest rate risk.

The following table presents the sensitivity of the Bank's Consolidated Balance Sheet items to interest rate fluctuations.

As at October 31							2016	2015
	Floating rate	3 months or less	Over 3 months to 12 months	Over 1 year to 5 years	Over 5 years	Non-interest sensitive	Total	Total
Assets								
Cash and deposits with financial institutions	574	5,754	–	–	–	1,855	8,183	7,567
Effective yield		0.4 %	– %	– %	– %			
Securities	2,303	3,505	4,462	21,213	11,354	21,704	64,541	56,040
Effective yield		0.5 %	0.7 %	1.4 %	2.4 %			
Loans and acceptances[1]	50,182	29,641	17,393	37,525	2,088	3,297	140,126	132,940
Effective yield		1.6 %	3.0 %	2.9 %	5.0 %			
Other	10,705	–	–	–	–	8,651	19,356	19,543
	63,764	38,900	21,855	58,738	13,442	35,507	232,206	216,090
Liabilities and equity								
Deposits	52,788	25,348	14,060	25,316	5,422	16,973	139,907	128,830
Effective yield		1.0 %	1.4 %	1.7 %	0.8 %			
Obligations related to securities sold short and related to securities sold under repurchase agreements and securities loaned	6,395	9,276	3,624	5,229	5,615	6,704	36,843	31,112
Effective yield		3.6 %	1.1 %	0.9 %	1.9 %			
Subordinated debt	–	–	1,003	–	9	–	1,012	1,522
Effective yield		– %	3.3 %	– %	1.4 %			
Acceptances and other liabilities	15,235	7,031	776	8,178	4,176	6,946	42,342	43,271
Equity	–	–	–	1,250	–	10,852	12,102	11,355
	74,418	41,655	19,463	39,973	15,222	41,475	232,206	216,090
On-balance-sheet gap	(10,654)	(2,755)	2,392	18,765	(1,780)	(5,968)	–	–
Position in Canadian dollars	(6,168)	(3,674)	2,450	22,949	(1,217)	(6,835)	7,505	7,133
Position in foreign currency	(4,486)	919	(58)	(4,184)	(563)	867	(7,505)	(7,133)
On-balance-sheet gap	(10,654)	(2,755)	2,392	18,765	(1,780)	(5,968)	–	–

(1) Includes securities purchased under reverse repurchase agreements and securities borrowed.

The effective yield represents the weighted average effective yield based on the earlier of contractual repricing and maturity dates.

NOTE 32 – SEGMENT DISCLOSURES

The Bank carries out its activities in three business segments, which are defined below. For presentation purposes, other activities are grouped in the *Other* heading. Each reportable segment is distinguished by services offered, type of clientele and marketing strategy.

Personal and Commercial
The Personal and Commercial segment encompasses the banking, financing, and investing services offered to individuals and businesses as well as insurance operations.

Wealth Management
The Wealth Management segment comprises investment solutions, trust services, banking services, lending services and other wealth management solutions offered through internal and third-party distribution networks.

Financial Markets
The Financial Markets segment encompasses banking services, investment banking services and financial solutions for large and mid-size corporations, public sector organizations, and institutional investors. The segment is also active in proprietary trading and investment activities for the Bank.

Other
This heading encompasses Treasury activities, including the Bank's asset and liability management, liquidity management and funding operations, certain international activities, certain non-recurring items and the unallocated portion of corporate services.

The Bank's segment reporting for fiscal 2016 is consistent with the reporting for fiscal 2015. The segment disclosures have been prepared in accordance with the accounting policies described in Note 1, except for the net interest income, non-interest income and income taxes (recovery) of the operating segments, which are presented on a taxable equivalent basis. Taxable equivalent basis is a calculation method that consists in grossing up certain tax-exempt income by the amount of income tax that would have otherwise been payable. The effect of these adjustments is reversed under the *Other* heading. Head office expenses are allocated to each operating segment presented in the segmented results. The Bank assesses performance based on the net income attributable to the Bank's shareholders. Intersegment revenues are recognized at the exchange amount. Segment assets correspond to average assets used in segment operations.

Results by Business Segment

Year ended October 31[1]

	Personal and Commercial		Wealth Management		Financial Markets		Other		Total	
	2016	2015	**2016**	2015	**2016**	2015	**2016**	2015	**2016**	2015
Net interest income[2]	**1,919**	1,825	**372**	323	**980**	996	**(315)**	(462)	**2,956**	2,682
Non-interest income[2]	**982**	1,002	**1,068**	1,096	**657**	706	**177**	260	**2,884**	3,064
Total revenues	**2,901**	2,827	**1,440**	1,419	**1,637**	1,702	**(138)**	(202)	**5,840**	5,746
Non-interest expenses	**1,640**	1,630	**998**	983	**796**	743	**441**	309	**3,875**	3,665
Contribution	**1,261**	1,197	**442**	436	**841**	959	**(579)**	(511)	**1,965**	2,081
Provisions for credit losses[3]	**475**	225	**5**	3	**4**	–	**–**	–	**484**	228
Income before income taxes (recovery)	**786**	972	**437**	433	**837**	959	**(579)**	(511)	**1,481**	1,853
Income taxes (recovery)[2]	**212**	261	**116**	110	**262**	261	**(365)**	(398)	**225**	234
Net income	**574**	711	**321**	323	**575**	698	**(214)**	(113)	**1,256**	1,619
Non-controlling interests	**–**	–	**–**	–	**18**	13	**57**	57	**75**	70
Net income attributable to the Bank's shareholders	**574**	711	**321**	323	**557**	685	**(271)**	(170)	**1,181**	1,549
Average assets	**91,067**	86,886	**11,006**	10,388	**91,928**	88,616	**41,912**	37,039	**235,913**	222,929

(1) For the year ended October 31, 2015, certain amounts have been revised from those previously reported. In particular, the restructuring charge recognized during fiscal 2015, which had been allocated among all the Bank's business segments, has been combined into the *Other* heading to reflect the presentation adopted in fiscal 2016.

(2) For the year ended October 31, 2016, *Net interest income* was grossed up by $231 million ($311 million in 2015), *Non-interest income* was grossed up by $4 million (nil in 2015), and an equivalent amount was recognized in *Income taxes (recovery)*. The effect of these adjustments is reversed under the *Other* heading.

(3) For the year ended October 31, 2016, the *Provisions for credit losses* item includes a $250 million sectoral provision on non-impaired loans recorded for the oil and gas producer and service company loan portfolio, reported in the Personal and Commercial segment.

NOTE 32 – SEGMENT DISCLOSURES (cont.)

Results by Geographic Segment

Year ended October 31

	Canada		United States		Other		Total	
	2016	2015	**2016**	2015	**2016**	2015	**2016**	2015
Net interest income	**2,803**	2,687	**110**	9	**43**	(14)	**2,956**	2,682
Non-interest income	**2,466**	2,772	**337**	284	**81**	8	**2,884**	3,064
Total revenues	**5,269**	5,459	**447**	293	**124**	(6)	**5,840**	5,746
Non-interest expenses	**3,601**	3,457	**235**	192	**39**	16	**3,875**	3,665
Contribution	**1,668**	2,002	**212**	101	**85**	(22)	**1,965**	2,081
Provisions for credit losses	**480**	228	**4**	–	**–**	–	**484**	228
Income before income taxes (recovery)	**1,188**	1,774	**208**	101	**85**	(22)	**1,481**	1,853
Income taxes (recovery)	**162**	189	**56**	13	**7**	32	**225**	234
Net income	**1,026**	1,585	**152**	88	**78**	(54)	**1,256**	1,619
Non-controlling interests	**57**	56	**18**	14	**–**	–	**75**	70
Net income attributable to the Bank's shareholders	**969**	1,529	**134**	74	**78**	(54)	**1,181**	1,549
Average assets	**209,414**	202,714	**18,325**	17,093	**8,174**	3,122	**235,913**	222,929

NOTE 33 – ACQUISITION AND DISPOSAL

Acquisition of Advanced Bank of Asia Limited

On May 16, 2016, the Bank completed the acquisition of Advanced Bank of Asia Limited (ABA), a major Cambodian financial institution that offers financial products and services to individuals and businesses. This acquisition is part of the Bank's international growth strategy and, upon completion, brings the Bank's common share equity interest in ABA to 90%. The sum of the $119 million cash purchase price, of the fair value of the previously held interest, and of the estimated value of the non-controlling interest established at the acquisition date exceeds the fair value of the net assets acquired by $129 million. This excess amount was recorded on the Consolidated Balance Sheet as goodwill and mainly represents ABA's expected business growth in Cambodia. The goodwill from this acquisition is not deductible for tax purposes. The acquired receivables, consisting mainly of personal and commercial loans, had an estimated acquisition-date fair value of $754 million. This amount also represents the gross contractual amounts receivable that the Bank expects to fully recover.

For the year ended October 31, 2016, the amount of the acquisition-related cost included in *Non-interest expenses* in the Consolidated Statement of Income was negligible. During the year ended October 31, 2016, the Bank also recognized a $41 million non-taxable gain on the revaluation of its previously held equity interest in ABA in the *Non-interest income – Other* item of the Consolidated Statement of Income. For business segment disclosure purposes, this gain and ABA's financial results have been included in the *Other* heading. ABA's results have been consolidated in the Bank's financial statements as of May 17, 2016. During the year ended October 31, 2016, ABA contributed approximately $43 million to the Bank's total revenues and $21 million to its net income. Had the Bank completed the acquisition on November 1, 2015, it would have reported total revenues of approximately $5,873 million and net income of approximately $1,266 million for the year ended October 31, 2016.

During the measurement period, the estimated fair values of all assets acquired and liabilities assumed may be retrospectively adjusted to reflect new information obtained about facts and circumstances that existed on the acquisition date. The following table summarizes the estimated acquisition-date fair values of all assets acquired and liabilities assumed.

Cash and deposits with financial institutions	**356**
Securities	**50**
Loans	**754**
Goodwill	**129**
Intangible assets	**2**
Other assets	**30**
	1,321
Deposits	**969**
Other liabilities	**86**
	1,055
Purchase price	**119**
Previously held interest	**133**
Non-controlling interest	**14**
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Disposal of a Portion of the Equity Interest in Fiera Capital Corporation

On March 12, 2015, through one of its subsidiaries, the Bank disposed of 9,083,000 Class A subordinate voting shares of Fiera Capital Corporation (Fiera Capital) at a per-share price of $12.60 for gross proceeds of $114 million. On the transaction date, the Bank's ownership percentage in Fiera Capital was reduced to 22% from 35% before the transaction. A gain of $34 million ($29 million net of income taxes) as well as $5 million in direct charges ($4 million net of income taxes) on this disposal of Fiera Capital shares were recognized in the *Non-interest income – Other* and *Non-interest expenses – Other* items, respectively, of the Consolidated Statement of Income for the year ended October 31, 2015 and were presented in the Wealth Management segment.

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STATISTICAL REVIEW

As at October 31[1] (millions of Canadian dollars)	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Consolidated Balance Sheet data										
Cash and deposits with financial institutions	**8,183**	7,567	8,086	3,596	3,249	2,851	2,274	2,228	3,660	3,328
Securities	**64,541**	56,040	52,953	53,744	54,898	56,592	54,268	50,233	46,185	39,270
Securities purchased under reverse repurchase agreements and securities borrowed	**13,948**	17,702	24,525	21,449	15,529	12,507	10,878	7,637	7,868	5,966
Loans and acceptances	**126,178**	115,238	106,169	97,338	90,922	80,758	63,134	58,370	56,015	52,045
Other assets	**19,356**	19,543	13,696	12,092	13,305	14,146	14,748	13,670	15,604	12,476
Total assets	**232,206**	216,090	205,429	188,219	177,903	166,854	145,302	132,138	129,332	113,085
Deposits	**139,907**	128,830	119,883	102,111	93,474	85,787	81,785	75,170	76,022	70,798
Other liabilities	**79,185**	74,383	73,163	74,729	73,948	71,791				
Other liabilities and non-controlling interests							54,276	48,474	45,546	36,045
Subordinated debt	**1,012**	1,522	1,881	2,426	2,470	2,000	2,033	2,017	2,255	1,605
Share capital										
Preferred	**1,650**	1,023	1,223	677	762	762	1,089	1,089	774	400
Common	**2,645**	2,614	2,293	2,160	2,054	1,970	1,804	1,729	1,656	1,575
Contributed surplus	**73**	67	52	58	58	46	66	48	31	32
Retained earnings	**6,706**	6,705	5,850	5,055	4,091	3,366	4,081	3,515	3,110	2,793
Accumulated other comprehensive income (loss)	**218**	145	289	214	255	337	168	96	(62)	(163)
Non-controlling interests	**810**	801	795	789	791	795				
Total liabilities and equity	**232,206**	216,090	205,429	188,219	177,903	166,854	145,302	132,138	129,332	113,085
Average assets	**235,913**	222,929	206,680	193,509	181,344	165,942	140,360	140,978	128,319	125,964
Net impaired loans[2]	**281**	254	248	183	179	175	162	223	169	129
Consolidated Statement of Income data										
Net interest income[3]	**2,956**	2,682	2,584	2,478	2,365	2,318	1,933	1,961	1,772	1,116
Non-interest income[3]	**2,884**	3,064	2,880	2,673	2,936	2,336	2,351	2,172	2,062	2,301
Total revenues	**5,840**	5,746	5,464	5,151	5,301	4,654	4,284	4,133	3,834	3,417
Provisions for credit losses	**484**	228	208	181	180	184	144	305	144	103
Non-interest expenses	**3,875**	3,665	3,423	3,206	3,207	2,952	2,822	2,662	2,695	2,626
Income taxes	**225**	234	295	252	317	264	221	252	167	79
Non-controlling interests							63	60	52	68
Net income	**1,256**	1,619	1,538	1,512	1,597	1,254	1,034	854	776	541
Non-controlling interests	**75**	70	69	63	61	60				
Net income attributable to the Bank's shareholders	**1,181**	1,549	1,469	1,449	1,536	1,194				

(1) The figures for 2010 and prior years are presented in accordance with previous Canadian GAAP, and certain amounts from fiscal years 2013, 2012 and 2011 have been adjusted to reflect changes to the accounting standards in 2014.
(2) Includes customers' liability under acceptances.
(3) The fiscal 2015, 2014, 2013 and 2012 figures have been adjusted to reflect the reclassification of certain amounts between the *Non-interest income - Credit fees* and the *Net interest income* items and thereby better reflect the nature of the income reported in the Personal and Commercial segment.

As at October 31[1]	**2016**	2015	2014	2013	2012	2011	2010	2009	2008	2007
Number of common shares[2] *(thousands)*	**338,053**	337,236	329,297	325,983	322,617	320,948	325,544	322,402	318,894	315,612
Number of common shareholders on record	**21,966**	22,152	22,394	22,737	23,180	23,588	23,598	23,970	24,354	24,780
Basic earnings per share[2]	**$ 3.31**	$ 4.56	$ 4.36	$ 4.34	$ 4.63	$ 3.41	$ 3.00	$ 2.48	$ 2.35	$ 1.63
Diluted earnings per share[2]	**$ 3.29**	$ 4.51	$ 4.32	$ 4.31	$ 4.58	$ 3.37	$ 2.97	$ 2.47	$ 2.34	$ 1.61
Dividend per share[2]	**$ 2.18**	$ 2.04	$ 1.88	$ 1.70	$ 1.54	$ 1.37	$ 1.24	$ 1.24	$ 1.24	$ 1.14
Share price[2]										
High	**$ 47.88**	$ 55.06	$ 53.88	$ 45.24	$ 40.64	$ 40.72	$ 33.94	$ 31.04	$ 27.32	$ 33.30
Low	**$ 35.83**	$ 40.75	$ 41.60	$ 36.18	$ 31.64	$ 32.43	$ 27.23	$ 12.81	$ 21.13	$ 25.25
Close	**$ 47.88**	$ 43.31	$ 52.68	$ 45.24	$ 38.59	$ 35.57	$ 33.57	$ 28.20	$ 22.61	$ 27.33
Book value[2]	**$ 28.52**	$ 28.26	$ 25.76	$ 22.97	$ 20.02	$ 17.82	$ 18.80	$ 16.72	$ 14.85	$ 13.43
Dividends on preferred shares										
Series 15	**–**	–	–	0.2444	$ 1.4625	$ 1.4625	$ 1.4625	$ 1.4625	$ 1.4625	$ 1.4625
Series 16	**–**	–	1.2125	$ 1.2125	$ 1.2125	$ 1.2125	$ 1.2125	$ 1.2125	$ 1.2125	$ 1.2125
Series 20	**–**	$ 1.5000	$ 1.5000	$ 1.5000	$ 1.5000	$ 1.5000	$ 1.5000	$ 1.5000	$ 0.8692	–
Series 21	**–**	–	–	$ 1.0078	$ 1.3438	$ 1.3438	$ 1.3438	$ 1.3438	$ 0.5596	–
Series 24	**–**	–	$ 0.4125	$ 1.6500	$ 1.6500	$ 1.6500	$ 1.6500	$ 1.3765	–	–
Series 26	**–**	–	$ 0.4125	$ 1.6500	$ 1.6500	$ 1.6500	$ 1.6500	$ 1.3042	–	–
Series 28	**$ 0.9500**	$ 0.9500	$ 0.9500	$ 0.9728	–	–	–	–	–	–
Series 30	**$ 1.0250**	$ 1.0250	$ 0.7849	–	–	–	–	–	–	–
Series 32	**$ 0.9750**	$ 1.0760	–	–	–	–	–	–	–	–
Series 34	**$ 1.1373**	–	–	–	–	–	–	–	–	–
Series 36	**$ 0.5733**	–	–	–	–	–	–	–	–	–
Financial ratios										
Return on common shareholders' equity	**11.7 %**	16.9 %	17.9 %	20.1 %	24.1 %	19.8 %	17.0 %	15.6 %	16.4 %	11.5 %
Return on average assets	**0.53 %**	0.73 %	0.74 %	0.78 %	0.88 %	0.76 %	0.74 %	0.61 %	0.60 %	0.43 %
Regulatory ratios under Basel III										
Capital ratios[3]										
CET1[4]	**10.1 %**	9.9 %	9.2 %	8.7 %	7.3 %	7.6 %				
Tier 1[4][5]	**13.5 %**	12.5 %[6]	12.3 %[7]	11.4 %	10.1 %	10.8 %	14.0 %	10.7 %	9.4 %	9.0 %
Total[4][5]	**15.3 %**	14.0 %[8]	15.1 %[7]	15.0 %	14.1 %	14.3 %	17.5 %	14.3 %	13.2 %	12.4 %
Leverage ratio[4]	**3.7 %**	3.7 %								
Other information										
Number of employees[9][10]	**20,600**	18,601	18,725	16,675	16,636	16,217	15,298	14,851	14,420	14,484
Branches in Canada	**450**	452	452	453	451	448	442	445	446	447
Banking machines	**938**	930	935	937	923	893	869	866	858	836

(1) The figures for 2010 and prior years are presented in accordance with previous Canadian GAAP, and certain amounts from fiscal years 2013, 2012 and 2011 have been adjusted to reflect changes to the accounting standards in 2014.
(2) The figures for 2014 and prior years have been adjusted to reflect the stock dividend paid in 2014.
(3) The October 31, 2013, 2012 and 2011 ratios have not been adjusted to reflect changes in accounting standards.
(4) As at October 31, 2015, 2014 and 2013, the capital ratios were calculated using the "all-in" methodology and the October 31, 2012 and 2011 ratios are presented on a pro forma basis.
(5) In 2008, the Bank adopted the rules of the Basel II Accord and, since November 1, 2009, it has been applying the AIRB Approach for credit risk, whereas prior to that date, it had been using the Standardized Approach under Basel I for 2007.
(6) Taking into account the redemption of the Series 20 preferred shares on November 15, 2015.
(7) Taking into account the redemption of the Series 16 preferred shares on November 15, 2014.
(8) Taking into account the redemption of the Series 20 preferred shares on November 15, 2015 and the $500 million redemption of notes on November 2, 2015.
(9) Full-time equivalent.
(10) Number of employees includes employees from Credigy Ltd. and Advanced Bank of Asia Limited for fiscal years 2016, 2015 and 2014.

GLOSSARY OF FINANCIAL TERMS

Acceptances
Acceptances constitute a guarantee of payment by a bank and can be traded in the money market. The Bank earns a “stamping fee” for providing this guarantee.

Allowances for credit losses
Allowances for credit losses are management’s best estimate of losses in its credit portfolio as at the balance sheet date. These allowances are primarily related to loans but may also cover the credit risk associated with deposits with financial institutions, loan substitute securities, credit instruments such as acceptances, and off-balance-sheet items such as commitments to extend credit, letters of guarantee and letters of credit. The allowances are increased by the provisions for credit losses, which are charged to income and decreased by the amount of write-offs, net of recoveries in the period.

Assets under administration
Assets in respect of which a financial institution provides administrative services such as custodial services, collection of investment income, settlement of purchase and sale transactions and record-keeping. Assets under administration, which are beneficially owned by clients, are not reported on the balance sheet of the institution offering such services.

Assets under management
Assets managed by a financial institution that are beneficially owned by clients. Management services are more comprehensive than administrative services, and include selecting investments or offering investment advice. Assets under management, which may also be administered by the financial institution, are not reported on the financial institution’s balance sheet.

Basis point
Unit of measure equal to one one-hundredth of a percentage point (0.01%).

Common Equity Tier 1 (CET1) capital ratio
Common Equity Tier 1 capital consists of common shareholders’ equity less goodwill, intangible assets and other capital deductions. Common Equity Tier 1 capital ratio is calculated by dividing Common Equity Tier 1 capital by the corresponding risk-weighted assets.

Derivative financial instruments
Derivative financial instruments are financial contracts whose value is derived from an underlying interest rate, exchange rate or equity, commodity or credit instrument or index. Examples of derivatives include swaps, options, forward rate agreements and futures. The notional amount of the derivative is the contract amount used as a reference point to calculate the payments to be exchanged between the two parties, and the notional amount itself is generally not exchanged by the parties.

Dividend payout ratio
Common dividends as a percentage of net income after preferred share dividends.

Economic capital
Economic capital is the internal measure used by the Bank to determine the capital required for its solvency and to pursue its business operations. Economic capital takes into consideration the credit, market, operational, business and other risks to which the Bank is exposed, as well as the risk diversification effect among them and among the business segments. Economic capital thus helps the Bank to determine the capital required to protect itself against such risks and ensure its long-term viability.

Efficiency ratio
Non-interest expenses as a percentage of total revenue, the efficiency ratio measures the efficiency of the Bank’s operations.

Fair value
The fair value of a financial instrument is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction in the principal market at the measurement date under current market conditions (i.e., an exit price).

Hedging
The purpose of a hedging transaction is to modify the Bank’s exposure to one or more risks by creating an offset between changes in the fair value of, or the cash flows attributable to, the hedged item and the hedging instrument.

Impaired loans
A loan, except credit card receivables, is considered impaired if there is objective evidence of impairment and, in management’s best estimate, the timely collection of principal and interest is no longer reasonably assured, or when a payment is contractually 90 days past due, unless the loan is fully secured and collection efforts are reasonably expected to result in repayment of the debt within 180 days. Loans that are insured or fully guaranteed by a Canadian government (federal or provincial) or by a Canadian government agency are considered impaired when they are more than 365 days in arrears.

Leverage ratio
The leverage ratio is calculated by dividing Tier 1 capital by total exposure. Total exposure is defined as the sum of on-balance-sheet assets (including derivative exposures and securities financing transaction exposures) and off-balance-sheet items.

Master netting agreement
Legal agreement between two parties that have multiple derivative contracts with each other that provides for the net settlement of all contracts through a single payment, in the event of default, insolvency or bankruptcy.

Net interest margin
Net interest income as a percentage of average interest-bearing assets.

Office of the Superintendent of Financial Institutions (Canada) (OSFI)
The mandate of the Office of the Superintendent of Financial Institutions (OSFI) is to regulate and supervise financial institutions and private pension plans subject to federal oversight, to help minimize undue losses to depositors and policyholders and, thereby, to contribute to public confidence in the Canadian financial system.

Provisions for credit losses
The amount charged to income necessary to bring the allowances for credit losses to a level determined appropriate by management. This includes provisions for impaired loans and non-impaired loans.

Return on common shareholders' equity (ROE)
Net income, less dividends on preferred shares, expressed as a percentage of the average value of common shareholders' equity.

Risk-weighted assets
Assets are risk weighted according to the guidelines established by OSFI. In the Standardized calculation approach, factors are applied to the face value of certain assets in order to reflect comparable risk levels. In the Advanced Internal Rating-Based (AIRB) approach, risk-weighted assets are derived from the Bank's internal models, which represent the Bank's own assessment of the risks it incurs. Off-balance-sheet instruments are converted to balance sheet (or credit) equivalents by adjusting the notional values before applying the appropriate risk-weighting factors.

Securities purchased under reverse repurchase agreements
Securities purchased by the Bank from a client pursuant to an agreement under which the securities will be resold to the same client on a specified date and at a specified price. Such an agreement is a form of short-term collateralized lending.

Securities sold under repurchase agreements
Financial obligations related to securities sold pursuant to an agreement under which the securities will be repurchased on a specified date and at a specified price. Such an agreement is a form of short-term funding.

Structured entities
A structured entity is an entity created to accomplish a narrow and well-defined objective and is designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, such as when voting rights relate solely to administrative tasks and the relevant activities are directed by means of contractual arrangements.

Taxable equivalent basis
Taxable equivalent basis is a calculation method that consists in grossing up certain tax-exempt income by the amount of income tax that would have otherwise been payable.

Tier 1 capital ratio
Tier 1 capital ratio consists of Common Equity Tier 1 capital and Additional Tier 1 instruments, namely, eligible non-cumulative preferred shares and the eligible amount of innovative instruments. Tier 1 capital ratio is calculated by dividing Tier 1 capital, less regulatory adjustments, by the corresponding risk-weighted assets.

Total capital ratio
Total capital is the sum of Tier 1 and Tier 2 capital. Tier 2 capital consists of the eligible portion of subordinated debt and certain loan loss allowances. Total capital ratio is calculated by dividing total capital, less regulatory adjustments, by the corresponding risk-weighted assets.

Total shareholder return
The total shareholder return (TSR) represents the average total return on an investment in the Bank's common shares. The return includes changes in share price and assumes that the dividends received were reinvested in additional common shares of the Bank.

Value-at-Risk (VaR)
VaR is a statistical measure of risk that is used to quantify market risks across products, per types of risks and aggregate risk on a portfolio basis. VaR is defined as the maximum loss at a specific confidence level over a certain horizon under normal market conditions. The VaR method has the advantage of providing a uniform measurement of financial instrument-related market risks based on a single statistical confidence level and time horizon.

INFORMATION FOR SHAREHOLDERS

Description of Share Capital

The authorized share capital of the Bank consists of an unlimited number of common shares, without par value, an unlimited number of first preferred shares, without par value, issuable for a maximum aggregate consideration of $5 billion, and 15 million second preferred shares, without par value, issuable for a maximum aggregate consideration of $300 million. As at October 31, 2016, the Bank had a total of 338,053,054 common shares and 66,000,000 first preferred shares issued and outstanding.

Stock Exchange Listings

The Bank's common shares and Series 28, 30, 32, 34 and 36 First Preferred Shares are listed on the Toronto Stock Exchange in Canada.

Issue or class	Ticker symbol	Newspaper abbreviation
Common shares	NA	Nat Bk or Natl Bk
First Preferred Shares		
Series 28	NA.PR.Q	Nat Bk s28 or Natl Bk s28
Series 30	NA.PR.S	Nat Bk s30 or Natl Bk s30
Series 32	NA.PR.W	Nat Bk s32 or Natl Bk s32
Series 34	NA.PR.X	Nat Bk s34 or Natl Bk s34
Series 36	NA.PR.A	Nat Bk s36 or Natl Bk s36

Number of Registered Shareholders

As at October 31, 2016, there were 21,966 common shareholders recorded in the Bank's common share register.

Dividends

Dividend Dates in Fiscal 2017
(subject to approval by the Board of Directors of the Bank)

Ex-dividend date	Record date	Payment date
Common shares		
December 22, 2016	December 28, 2016	February 1, 2017
March 23, 2017	March 27, 2017	May 1, 2017
June 22, 2017	June 22, 2017	August 1, 2017
September 21, 2017	September 25, 2017	November 1, 2017
Preferred shares, Series 28, 30, 32, 34 and 36		
December 30, 2016	January 4, 2017	February 15, 2017
April 6, 2017	April 10, 2017	May 15, 2017
July 6, 2017	July 10, 2017	August 15, 2017
October 5, 2017	October 10, 2017	November 15, 2017

Dividends Declared on Common Shares During Fiscal 2016

Ex-dividend date	Record date	Payment date	Dividend per share ($)
December 17, 2015	December 21, 2015	February 1, 2016	0.54
March 23, 2016	March 28, 2016	May 1, 2016	0.54
June 16, 2016	June 20, 2016	August 1, 2016	0.55
September 22, 2016	September 26, 2016	November 1, 2016	0.55

Dividends Declared on Preferred Shares During Fiscal 2016

			Dividend per share ($)				
Ex-dividend date	Record date	Payment date	Series 28	Series 30	Series 32	Series 34	Series 36
Dec. 30, 15	Jan. 4, 16	Feb. 15, 16	0.2375	0.2563	0.2438	–	–
Apr. 7, 16	Apr. 11, 16	May 15, 16	0.2375	0.2562	0.2438	0.4373	–
Jun. 29, 16	Jul. 4, 16	Aug. 15, 16	0.2375	0.2563	0.2437	0.3500	–
Oct. 6, 16	Oct. 10, 16	Nov. 15, 16	0.2375	0.2562	0.2437	0.3500	0.5733

Dividends paid are "eligible dividends" in accordance with the *Income Tax Act* (Canada).

Dividend Reinvestment and Share Purchase Plan

National Bank has a Dividend Reinvestment and Share Purchase Plan for Canadian holders of its common and preferred shares under which they can acquire common shares of the Bank without paying commissions or administration fees. Canadian participants acquire common shares through the reinvestment of cash dividends paid on the shares they hold or through optional cash payments of at least $500 per payment, up to a maximum of $5,000 per quarter.

For additional information, shareholders may contact National Bank's registrar and transfer agent, Computershare Trust Company of Canada, at 1-888-838-1407. To participate in the plan, National Bank's beneficial or non-registered common shareholders must contact their financial institution or broker.

Direct Deposit
Shareholders may elect to have their dividend payments deposited directly via electronic funds transfer to their bank account at any financial institution that is a member of the Canadian Payments Association. To do so, they must send a written request to the Transfer Agent, Computershare Trust Company of Canada.

Head Office
National Bank of Canada
National Bank Tower
600 De La Gauchetière Street West, 4th Floor
Montreal, Quebec H3B 4L2 Canada

Telephone: 514-394-5000
Website: nbc.ca

Annual Meeting
The Annual Meeting of Holders of Common Shares of the Bank will be held on Friday, April 21, 2017, at the National Bank of Canada's head office in Montreal, Quebec, Canada.

Public Accountability Statement
The 2016 Social Responsibility Report will be available in March 2017 on the Bank's website at nbc.ca.

Communication with Shareholders
For information about stock transfers, address changes, dividends, lost certificates, tax forms and estate transfers, shareholders of record may contact the Transfer Agent at the following address:

Computershare Trust Company of Canada
Share Ownership Management
1500 Robert-Bourassa Boulevard, 7th Floor
Montreal, Quebec H3A 3S8 Canada

Telephone: 1-888-838-1407
Fax: 1-888-453-0330
E-mail: *service@computershare.com*
Website: computershare.com

Shareholders whose shares are held by a market intermediary are asked to contact the market intermediary concerned.

Other shareholder inquiries can be addressed to:
Investor Relations
National Bank of Canada
National Bank Tower
600 De La Gauchetière Street West, 7th Floor
Montreal, Quebec H3B 4L2 Canada

Telephone: 1-866-517-5455
Fax: 514-394-6196
E-mail: investorrelations@nbc.ca
Website: nbc.ca/investorrelations

Caution Regarding Forward-Looking Statements
From time to time, National Bank of Canada makes written and oral forward-looking statements, including in this Annual Report, in other filings with Canadian regulators, in reports to shareholders, in press releases and in other communications. All such statements are made pursuant to the Canadian and American securities legislation and the provisions of the United States Private Securities Litigation Reform Act of 1995.

Additional information about these statements can be found on page 9 of this Annual Report.

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