



Report to Shareholders

Second Quarter 2020

National Bank reports its results for the Second Quarter of 2020

The financial information reported in this document is based on the unaudited interim condensed consolidated financial statements for the quarter and the six-month period ended April 30, 2020 and is prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB), unless otherwise indicated. IFRS represent Canadian generally accepted accounting principles (GAAP). All amounts are presented in Canadian dollars.

MONTREAL, May 26, 2020 – For the second quarter of 2020, National Bank is reporting net income of \$379 million compared to \$558 million in the second quarter of 2019. Second-quarter diluted earnings per share stood at \$1.01 compared to \$1.51 in the second quarter of 2019. The decrease in net income stems from a considerable increase in provisions for credit losses recorded to reflect a significant deterioration in the macroeconomic outlook caused by COVID-19 and the expected impacts on our clients. However, income before provisions for credit losses and income taxes on a taxable equivalent basis totalled \$991 million in the second quarter of 2020, a 20% year-over-year increase driven by revenue growth across all business segments.

“The world is enduring extremely challenging times, both from a health and financial perspective. Since the onset of the current crisis, we have prioritized the well-being of our employees, clients, and communities. We have deployed exceptional efforts to support clients by way of uninterrupted service, numerous financial relief measures, and an extension of our balance sheet,” said Louis Vachon, President and Chief Executive Officer of National Bank of Canada.

“Despite these unprecedented events, our business has held up well with revenue growth being generated across all business segments, led by Financial Markets and Wealth Management. For the second quarter, we are reporting provisions for credit losses totalling \$504 million, reflecting our most prudent estimate ahead of an uncertain macroeconomic outlook. At the same time, we have maintained strong capital and liquidity levels with a CET1 ratio of 11.4% and a liquidity coverage ratio of 149%,” added Mr. Vachon.

“At this point in time, the severity and duration of the COVID-19 pandemic and its impact on the economy are impossible to predict. I am confident that the resilience of the Bank’s franchise, our defensive positioning, the quality of our credit portfolios, and our strong balance sheet will serve us well as we manage through these uncertain times.”

Highlights

(millions of Canadian dollars)	Quarter ended April 30			Six months ended April 30		
	2020	2019	% Change	2020	2019	% Change
Net income	379	558	(32)	989	1,110	(11)
Diluted earnings per share (<i>dollars</i>)	\$ 1.01	\$ 1.51	(33)	\$ 2.68	\$ 3.01	(11)
Return on common shareholders' equity	10.7 %	17.8 %		14.3 %	17.5 %	
Dividend payout ratio	45.9 %	41.6 %		45.9 %	41.6 %	
				As at April 30, 2020	As at October 31, 2019	
CET1 capital ratio under Basel III				11.4 %	11.7 %	
Leverage ratio under Basel III				4.4 %	4.0 %	

Personal and Commercial

- Net income totalled \$65 million in the second quarter of 2020 compared to \$230 million in the second quarter of 2019, a decrease essentially due to an increase in provisions for credit losses on non-impaired loans recorded to reflect a significant deterioration in the macroeconomic outlook caused by COVID-19 and the expected impacts on clients.
- Income before provisions for credit losses and income taxes totalled \$389 million in the second quarter of 2020, up 3% from \$376 million in the second quarter of 2019.
- At \$848 million, second-quarter total revenues rose \$14 million or 2% year over year.
- Compared to a year ago, personal lending grew 4%, particularly due to mortgage lending, while commercial lending grew 6% from a year ago.
- The net interest margin was 2.22% in the second quarter of 2020 compared to 2.23% in the second quarter of 2019.
- Second-quarter non-interest expenses stood at \$459 million, stable compared to the second quarter of 2019.
- At 54.1%, the second-quarter efficiency ratio improved from 54.9% in the second quarter of 2019.

Wealth Management

- Net income totalled \$141 million in the second quarter of 2020, a 21% increase from \$117 million in the second quarter of 2019.
- Second-quarter total revenues amounted to \$474 million compared to \$426 million in second quarter 2019, a \$48 million or 11% increase driven mainly by growth in transaction-based and other revenues as well as in fee-based revenues.
- Second-quarter non-interest expenses stood at \$278 million, up 4% from \$267 million in the second quarter of 2019.
- At 58.6%, the efficiency ratio improved from 62.7% in the second quarter of 2019.

Financial Markets

- Net income totalled \$159 million in the second quarter of 2020 compared to \$158 million in the second quarter of 2019.
- Income before provisions for credit losses and income taxes on a taxable equivalent basis⁽¹⁾ totalled \$378 million in the second quarter of 2020, up 70% from \$223 million in the second quarter of 2019.
- Total revenues on a taxable equivalent basis⁽¹⁾ amounted to \$598 million, a \$193 million or 48% year-over-year increase attributable essentially to the global markets revenue category.
- Second-quarter non-interest expenses stood at \$220 million compared to \$182 million in the second quarter of 2019.
- The segment recorded \$162 million in provisions for credit losses in the second quarter of 2020 versus \$7 million in the second quarter of 2019, with the increase stemming from a significant deterioration in the macroeconomic outlook caused by COVID-19 and the expected impacts on clients.
- At 36.8%, the second-quarter efficiency ratio on a taxable equivalent basis⁽¹⁾ improved from 44.9% in the second quarter of 2019.

U.S. Specialty Finance and International

- Net income totalled \$74 million in the second quarter of 2020, a 3% increase from \$72 million in the second quarter of 2019.
- Second-quarter total revenues amounted to \$183 million, a 3% year-over-year increase driven by revenue growth at the ABA Bank subsidiary.
- Second-quarter non-interest expenses stood at \$82 million, an \$8 million year-over-year increase attributable to the expansion of ABA Bank's banking network.

Other

- The *Other* heading of segment results posted a net loss of \$60 million in the second quarter of 2020 compared to a net loss of \$19 million in the second quarter of 2019. This change came mainly from an increase in non-interest expenses, in particular expenses incurred to implement health and safety measures for employees and clients in response to the pandemic.

Capital Management

- As at April 30, 2020, the Common Equity Tier 1 (CET1) capital ratio under Basel III was 11.4%, compared to 11.7% as at October 31, 2019.
- As at April 30, 2020, the Basel III leverage ratio was 4.4%, an increase from October 31, 2019.

(1) See the Financial Reporting Method section on page 12 for additional information on non-GAAP financial measures.

Management's Discussion and Analysis

May 26, 2020

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 unaudited interim condensed consolidated financial statements (the consolidated financial statements) for the quarter and six-month period ended April 30, 2020 and prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB), unless otherwise indicated. IFRS represent Canadian generally accepted accounting principles (GAAP). This MD&A should be read in conjunction with the consolidated financial statements and accompanying notes for the quarter and six-month period ended April 30, 2020 and with the *2019 Annual Report*. 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 this document, in other filings with Canadian securities regulators, and in other communications. All such statements are made in accordance with applicable securities legislation in Canada and the United States. Forward-looking statements in this document may include, but are not limited to, statements with respect to the economy—particularly the Canadian and U.S. economies—market changes, the Bank's objectives, outlook and priorities for fiscal year 2020 and beyond, its strategies or future actions for achieving them, expectations for the Bank's financial condition, the regulatory environment in which it operates, the potential impacts of — and the Bank's response to — the COVID-19 pandemic, and certain risks it faces. These forward-looking statements are typically identified by words such as "outlook", "believe", "foresee", "forecast", "anticipate", "estimate", "project", "expect", "intend", "plan", and similar expressions of future or conditional verbs such as "will", "may", "should", "could" or "would".

Such forward-looking statements are made for the purpose of assisting the holders of the Bank's securities in understanding the Bank's financial position and results of operations as at and for the periods ended on the dates presented, as well as the Bank's financial performance objectives, vision and strategic goals, and may not be appropriate for other purposes.

By their very nature, these 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 2020, including in the context of the COVID-19 pandemic, 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, including provisions for credit losses. In determining its expectations for economic conditions, both broadly and in the financial services sector in particular, the Bank primarily considers historical economic data provided by the governments of Canada, the United States and certain other countries in which the Bank conducts business, as well as their agencies.

There is a strong possibility that the Bank's express or implied predictions, forecasts, projections, expectations or conclusions will not prove to be accurate, that its assumptions may not be correct and that its financial performance objectives, vision and strategic goals will not be achieved. The Bank recommends that readers not place undue reliance on forward-looking statements, as a number of factors, many of which are beyond the Bank's control, including the impacts of the COVID-19 pandemic, could cause actual results to differ significantly from the expectations, estimates or intentions expressed in these 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 58 of the Bank's *2019 Annual Report*, and more specifically, general economic environment and financial market conditions in Canada, the United States and certain other countries in which the Bank conducts business; regulatory changes affecting the Bank's business; geopolitical uncertainty; important changes in consumer behaviour; Canadian housing and household indebtedness; changes in the Bank's customers' and counterparties' performance and creditworthiness; 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; potential disruption to key suppliers of goods and services to the Bank; potential disruptions to the Bank's information technology systems, including evolving cyberattack risk; and possible impacts of catastrophic events affecting local and global economies, including natural disasters and public health emergencies such as the COVID-19 pandemic.

Statements about the expected impacts of the COVID-19 pandemic on the Bank's business, results of operations, corporate reputation, financial position and liquidity, and on the global economy may be inaccurate and differ, possibly materially, from what is currently expected as they depend on future developments that are highly uncertain and cannot be predicted.

The foregoing list of risk factors is not exhaustive. Additional information about these factors can be found in the Risk Management section of the Bank's *2019 Annual Report* and in the COVID-19 Pandemic section of this Report to Shareholders for the Second Quarter of 2020. 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 risks 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.

COVID-19 Pandemic

COVID-19 emanates from an emerging infectious disease, namely, the coronavirus disease. The coronavirus strain was detected in November 2019 in the city of Wuhan in central China, and then spread throughout the world. In early January 2020, the Chinese government implemented strict lockdown procedures and forced several cities—and then an entire region—to remain under lockdown, closing many public sites and enforcing considerable sanitary measures. On January 13, 2020, a first case was reported outside mainland China, and on January 30, 2020, the World Health Organization (WHO) declared that the outbreak of the new coronavirus constituted an international public health emergency.

On March 11, 2020, the WHO declared that the COVID-19 outbreak constituted a pandemic, requiring important protective measures be taken to prevent overcrowding at intensive care units and also to strengthen preventive hygiene (limiting physical contact, prohibiting gatherings and major events as well as unnecessary travel and movement, promoting handwashing, enforcing lockdown, etc.). The global pandemic prompted many countries, including Canada, to implement lockdown and social distancing measures designed to slow the development of new contagion hotbeds. Those measures included the closing of borders in many countries and the cancellation of sporting and cultural events around the world, triggering a sudden and widespread drop in market capitalizations on all major stock exchanges around the world arising from the uncertainty and fears about the global economy.

In Canada, banking services are considered essential services and are therefore being maintained despite the lockdown and social distancing measures. Given the current economic and social conditions, the Bank is committed to supporting its employees, clients, and communities. The Bank has ensured the continuity of all its activities since the beginning of this unprecedented crisis. All of its experts have been mobilized to guide and support clients and answer their questions during this period of uncertainty.

Risk Factors

The spread of COVID-19 has had disruptive and adverse effects in countries in which the Bank operates and more broadly on the global economy. It has caused increased volatility and declines in financial markets, disruptions to global supply chains, a sharp and sudden rise in unemployment, and an economic slowdown. Governments, monetary authorities, and regulators have taken actions to support the economy and the financial system, including taking fiscal and monetary measures to increase liquidity and support incomes, as well as implementing regulatory flexibility measures in respect of capital and liquidity requirements for financial institutions. If the COVID-19 pandemic is prolonged, the adverse impact on the global economy could deepen, augmenting financial market volatility, corporate insolvency risks, and negative household wealth impacts.

The continuation or worsening of the economic conditions caused by the COVID-19 pandemic could have a significant adverse effect on the business, results of operations, corporate reputation, and financial condition of the Bank. It may also have the effect of heightening many of the top and emerging risks the Bank faces, including 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 in this report and in the Bank's *2019 Annual Report*.

The spread of COVID-19 has put certain top and emerging risks to which the Bank is exposed into perspective, such as:

- Credit, market, and liquidity and funding risks: Sudden rise in unemployment, reduced demand for financial products and services, changes to payment terms leading to reduced margins or unprofitable loans, increased borrower defaults leading to increased credit losses and lower mortgaged property values, constraints on liquidity and capital.
- Technology and information security risk: Increased use of digital channels, massive teleworking (including for critical operations), increased reliance on certain shared technology infrastructures, and an increase in external threats.
- Third-party risk: Government restrictions and measures affecting service delivery, disruptions to key suppliers of goods and services, fourth-party risk, increased use of cloud computing (high concentration of suppliers), and potential financial difficulties among third parties deemed critical.
- Human capital risk: Business disruption resulting from potential absenteeism in the current context (preventive withdrawals, work-life balance, unpaid leave), increased work environment stress for employees who are in contact with clients (fear of being infected or infecting loved ones), challenges related to working from home (isolation and lack of interaction with peers), complexities of integrating and training new resources in the context of a pandemic, issues relating to health and safety at work (spread of the virus in the workplace, ergonomic risks linked to working from home).
- Execution risk and cybersecurity risk: Vulnerability related to errors, operational flexibility (government moratoriums and programs, indexing in the systems of these new programs, processes, controls and accountability to be defined and implemented) and processing capacity (accumulation and processing of delays, increase in client calls, increased use of digital solutions, and increase in transactions).
- Strategic risk (client focus): Increased use of remote services, managing government programs that address financial difficulties faced by clients, temporary closure of several branches, changes in behaviours resulting from COVID-19, and increased risk of fraud.

The extent to which the COVID-19 pandemic negatively affects the Bank's business, results of operations, corporate reputation and financial condition, including its regulatory capital and liquidity ratios and ability to meet regulatory and other requirements as well as the global economy and financial markets will depend on future developments that are highly uncertain and cannot be predicted. These future developments include the scope, severity and duration of the pandemic, actions and measures taken by governmental, monetary, and regulatory authorities and other third parties in response to the pandemic, and the impact and effectiveness of those actions and measures.

The Bank's processes are designed to detect and assess these risks as early as possible so that appropriate mitigating strategies can be applied. Decision-making is supported by risk assessments and management processes that are consistent with the Bank's risk appetite and by prudent levels of capital and liquidity. For additional information, see the sections entitled Risk Management in this MD&A and in the *2019 Annual Report*.

During the quarter ended April 30, 2020, the Bank accelerated and increased the frequency of several activities as part of its risk management framework, including:

- Stress tests and crisis simulations: Identification of vulnerabilities, ability to absorb shocks, and remediation mechanisms.
- Enterprise-wide risk management committee: Regular reporting on credit risk, market risk, liquidity and funding risk, and operational and fraud risk as well as on the evolution of capital.
- Reports and forecasts provided to management and to the Office of the President on a regular basis (daily, bi-weekly and weekly, as applicable).
- Office of the Superintendent of Financial Institutions (Canada) (OSFI): Regular reporting and responses to several ad hoc requests.
- OSFI, Bank of Canada and Finance Minister of Canada: More frequent communications.
- Activation of the corporate crisis unit: Deployed to manage business continuity.
- Internal and external communications: More frequent communications to stakeholders, by the President and Chief Executive Officer, by management – Employee Experience, and by other members of management, depending on the target audience.

To protect its clients and employees, the Bank has implemented measures to prevent the spread of COVID-19. It has temporarily adjusted the number of open service points and modified the business hours of its branches while ensuring safe access to banking services, with particular attention being paid to banking machines. In addition, since March 13, 2020, the Bank has asked all employees whose tasks allow them to work from home to do so until further notice. Employees who were required to work on site received clear health guidelines, and some have used alternate sites in order to comply with the requested social distancing.

The Bank's Financial Performance

In light of COVID-19 and its impact on global and local economies, Canadian banks are facing a difficult situation. This exceptional situation has led to significant changes in the overall market, such as business closures and temporary layoffs, low interest rates, declining and volatile stock markets, declining oil prices, and government measures implemented in response to COVID-19.

Macroeconomic Factors

Assumptions about the performance of the Canadian and U.S. economies in 2020, including in the context of the COVID-19 pandemic and how that will affect the Bank, are among the main factors considered in setting the Bank's strategic priorities and objectives, including provisions for credit losses. In determining its expectations for economic conditions, both broadly and in the financial services sector in particular, the Bank primarily considers historical economic data provided by the governments in Canada, the United States and certain other countries in which the Banks conducts business, as well as their agencies.

The main macroeconomic factors used when estimating allowances for credit losses on loans and other financial assets are as follows: gross domestic product (GDP), the unemployment rate, the housing price index, the rate spread on BBB bonds, the stock market (S&P/TSX), and the West Texas Intermediate (WTI) oil price. For each scenario, namely, the base scenario, upside scenario, and downside scenario, the average of the values over the next 12 months and the average of the values over the remaining forecast period for each macroeconomic factor are used to estimate the expected credit losses for the personal credit portfolio and for the business and government credit portfolio.

During the quarter ended April 30, 2020, the main macroeconomic factors deteriorated considerably given the shutdown of non-essential services. In the year ahead, the economic variables are expected to fluctuate significantly from one quarter to the next. In some instances, the next-12-month data obscures these significant fluctuations. For example, the 1.4% anticipated GDP growth rate in the base scenario for the next 12 months includes a 32% annualized contraction in the first quarter and a 42% rebound in the second quarter. With respect to the unemployment rate, the anticipated 8.5% for the next 12 months includes an 11.8% unemployment rate in the first quarter and a 7.8% rate in the second quarter.

According to the base scenario, the Canadian economy will rebound in the second half of the year as lockdown measures are lifted, but the unemployment rate will remain high at the end of 2020, i.e., above pre-recession levels. Oil will rebound slightly at year's end and rise by the end of 2021. Given a difficult labour market and reduced immigration, housing prices and the S&P/TSX will decline.

According to the upside scenario, the economy will rebound more strongly thanks to medical breakthroughs that help fight COVID-19. Fiscal and monetary stimulus measures will limit the damage in terms of destroyed capacity. The unemployment rate at the end of 2020 will be only slightly above pre-recession levels. At year's end, declines in housing prices and the S&P/TSX will be less pronounced and the price of oil will bounce back.

According to the downside scenario, the uncertainties surrounding COVID-19 will provoke a deeper recession. Global trade will remain depressed for longer, and disappointing corporate earnings will inflict a new round of stress on the financial markets. The result will be greater destruction of capacity than in the base scenario. Consequently, the unemployment rate will remain at higher levels.

Given uncertainty surrounding the key inputs used to measure credit losses, the Bank has applied expert credit judgment to adjust the modelled ECL results. For additional information, see the Economic Review and Outlook section of this MD&A and Note 7 to the financial statements.

Impact on Results

Major disruptions in the global environment in which the Bank operates have affected its financial results, in particular its provisions for credit losses, which were increased considerably to reflect a significant deterioration in the macroeconomic outlook caused by COVID-19 and the expected impacts on our clients. However, income before provisions for credit losses and income taxes increased, as revenue was up across all business segments, especially in the Financial Markets segment, which experienced strong growth. Non-interest expenses were also affected by measures taken to protect the health and safety of employees serving clients in these exceptional circumstances as well as by decreases in certain variable expenses and other discretionary costs.

For additional information, refer to the Financial Analysis and Business Segment Analysis sections of this MD&A.

Relief Measures for Clients

In response to the economic and financial environment resulting from COVID-19, the Bank announced a series of support measures for the clients of its main business segments during March and April 2020. Some of these measures were initiated by the Canadian government and regulatory authorities, together with the Canadian banks, and were implemented quickly to come to the assistance of individuals and businesses. These measures are designed to provide financial support to clients facing the economic consequences of COVID-19. The main relief measures are described below.

Clients – Individuals

Mortgages Personal loans	Credit cards	Transactions
<ul style="list-style-type: none"> • Payment deferrals of up to six months on mortgage loans. • Deferral of minimum payment for up to three months on home equity lines of credit (All-In-One™). • Payment deferrals of up to three months on personal loans. 	<ul style="list-style-type: none"> • Deferral of minimum monthly payment for a period of up to 90 days. • Annual interest rate reduced to 10.9% on purchases and cash advances during the deferral period, depending on an analysis of the file. • Permanent or temporary increase to credit card limit. 	<ul style="list-style-type: none"> • Temporary removal of certain transaction fees: <ul style="list-style-type: none"> – Interac e-Transfer service charge. – Charges for stop payment requests by cheque or preauthorized debit. – Interest charges on an overdraft.

As at April 30, 2020, the Bank has approved payment deferral for approximately 114,000 Personal Banking clients. The gross carrying value of loans subject to these deferrals totalled \$8.6 billion for residential mortgages, \$756 million for personal loans, and \$66 million for credit card receivables.

In addition, through its insurance subsidiary, the Bank offered easing measures on home and auto insurance products, including discounts of 15% for a period of three months. Approximately 13,000 clients elected to avail themselves of these easing measures during the quarter ended April 30, 2020.

Clients – Businesses

Loans	Credit cards	Transactions
<ul style="list-style-type: none"> • Canada Emergency Business Account (CEBA) for small- and medium-sized enterprises and non-profit organizations: A \$40,000 interest-free loan up to December 31, 2022 supported by the Canadian government (Eligibility: have paid from \$20,000 to \$1.5 million in salaries in 2019). • Concerted Temporary Action Program for Businesses (CTAPB): Working capital loan of at least \$71,500 supported by Investissement Québec (Eligibility: history of satisfactory profitability). • Business Credit Availability Program (BCAP) for exporting or non-exporting businesses, supported by Export Development Canada: Operating credit and cash flow term loans of up to \$6.25 million in Canadian dollars only. • Principal payment deferrals of up to six months. 	<ul style="list-style-type: none"> • Deferral of minimum monthly payment for a period of up to 90 days on certain Business cards. • Contactless payments over \$100 at participating merchants. 	<ul style="list-style-type: none"> • Increase to the weekly limit of incoming Interac e-transfers. • Temporary removal of charges for stop payment requests.

As at April 30, 2020, the Bank had granted 20,714 loans under the CEBA program, 9 loans under the CTAPB program, and 5 loans under the BCAP program.

In addition, the Bank is addressing the specific needs of its Commercial Banking clients and Financial Markets clients to support them during this unprecedented crisis. As at April 30, 2020, the Bank had approved payment deferrals for approximately 3,100 Commercial Banking and Financial Markets clients. The gross carrying value of loans subject to these deferrals totalled \$4.5 billion.

Key Measures Introduced by the Regulatory Authorities

Like all Canadian financial institutions, the Bank is facing regulatory changes that are being implemented at an increasing rate. As described below, as part of a coordinated effort by Government of Canada agencies, OSFI and other regulatory authorities governing the Bank's activities have taken a number of actions to reinforce the resilience of Canadian banks and improve the stability of the Canadian financial system and economy in response to challenges posed by COVID-19 and current market conditions. Regulatory authorities are also stepping up their oversight activities and focusing on the effects of the pandemic on the activities, capital strength, and liquidity of regulated entities.

OSFI, market participants, and financial institutions all recognize the critical need for strong capital and liquidity and effective risk management. OSFI has strengthened its requirements and its supervisory efforts in all of these areas since the 2008 global financial crisis. These measures have improved the resilience of Canadian banks in periods of stress.

OSFI continues to actively monitor the evolving COVID-19 situation and has been in frequent contact with banks to assess their operational capacity and actions to address the current environment. As a result of these discussions and the measures announced in March and April 2020, OSFI announced a continuance of the regulatory flexibility measures to support COVID-19-related efforts while promoting financial resilience and stability. The main key measures are described on the following pages.

Capital Management

One of the requirements imposed by OSFI after the 2008 financial crisis was the creation of the Domestic Stability Buffer (the buffer) requirement applicable to Canadian domestic systemically important banks (D-SIBs). The buffer's countercyclical design enables D-SIBs to use the capital they have built up during good times when it may be needed most. On March 13, 2020, OSFI lowered the buffer from 2.25% of risk-weighted assets to 1.0%. This action is being taken in order to support D-SIBs' ability to supply credit to the economy during an expected period of disruption related to COVID-19 and market conditions. OSFI will continue to analyze the buffer level and could reduce it more as needed. OSFI also stated its commitment that any increases to the buffer will not take effect for at least 18 months from March 13, 2020 in addition to its expectation for all banks to interrupt any dividend increases and share buybacks for the time being.

On March 27, 2020, OSFI announced a series of additional measures for banks in response to the difficulties caused by the spread of COVID-19, including:

- Treatment of regulatory capital for expected credit loss (ECL) accounting purposes: As other regulatory agencies are doing, OSFI has introduced transitional arrangements applicable to the ECL provisioning method set out in the Basel framework. This will result in a portion of allowances that would otherwise be included in Tier 2 capital to be included in CET1 capital. Although the Basel Committee on Banking Supervision (BCBS) is allowing jurisdictions the option of applying a 100% add-back of allowances to CET1 capital, OSFI believes that a maximum add-back of 70% is appropriate. This increased amount is adjusted for tax effects and multiplied by a scaling factor that decreases over time. The scaling factor will be set at 70% in fiscal 2020, 50% in fiscal 2021, and 25% in fiscal 2022. The three-year transition will help banks to phase-in the impact of increased ECL allowances in CET1 capital while also acknowledging that these provisions are being taken.
- Deferral of loan payments: The bank loans subject to payment deferrals, such as mortgage loans, personal loans, and small business loans, continue to be treated as performing loans under the Capital Adequacy Requirement guideline. This is to assist banks in responding to clients managing through hardships caused by the crisis.
- Reduction of stressed Value-at-Risk (VaR) multipliers under market risk: On a temporary basis, banks subject to market risk capital requirements and using the AIRB approach may reduce the stressed VaR multiplier that was being applied at the end of first quarter 2020 by two. This reduction can be applied retrospectively for the entirety of the second quarter of 2020.
- Removal of funding valuation adjustment (FVA) hedges in market risk: Banks must remove hedges of FVA from the calculation of market risk capital. Doing so addresses an asymmetry in the current rule where these hedges of FVA are included in the calculation while the underlying exposures to FVA are not. This treatment should be back-dated to the beginning of the second quarter of 2020.
- Capital floor: OSFI is lowering the floor factor from 75% to 70%. The 70% floor factor is expected to stay in place until the domestic implementation of the Basel III capital floor in the first quarter of 2023. The 70% factor ensures that the floor continues to protect against model risk while maintaining the risk sensitivity of the capital framework for banks subject to the Advanced IRB approach.
- Leverage ratio: Banks can temporarily exclude the following exposures from the leverage ratio exposure measure: (1) Central bank reserves; (2) Sovereign-issued securities by borrowers that qualify as high-quality liquid assets (HQLA) under the *Liquidity Adequacy Requirements* guideline. This treatment will remain in place until April 30, 2021 unless OSFI decides to maintain the exclusion for a longer period. Capital freed up through this measure should not be distributed (e.g., as dividends or bonus payments) and should rather be used to support lending and financial intermediation activities.
- Margin required for non-centrally cleared derivatives: In line with a decision by the BCBS and International Organization of Securities Commissions, OSFI is extending the deadline for the implementation of the final two phases of the initial margin requirements for non-centrally cleared derivatives outlined in OSFI's E-22 guideline by one year. With this extension, the final implementation phase will take place on September 1, 2022, at which point covered entities with an aggregate average notional amount (AANA) of non-centrally cleared derivatives greater than \$12 billion will be subject to the requirements. As an intermediate step, from September 1, 2021, covered entities with an AANA of non-centrally cleared derivatives greater than \$75 billion will be subject to the requirements.
- Delaying implementation of the Basel III reforms: The Group of Central Bank Governors and Heads of Supervision (GHOS), which oversees the BCBS, announced a postponement to the implementation of the reforms of the Basel III capital international standard published in December 2017. OSFI has therefore postponed until the first quarter of 2023 the implementation dates applicable to the revisions to the Standardized Approach and AIRB Approach to credit risk, the operational risk framework, and the leverage ratio framework, as well as the introduction of a more risk-sensitive capital floor. Implementation of the Pillar 3 financial disclosure requirements finalized by the BCBS in December 2018 has also been delayed until at least the first quarter of 2023. Lastly, implementation of the final set of revisions to the new market risk framework entitled *Fundamental Review of the Trading Book* published in January 2019 as well as the revised credit valuation adjustment (CVA) risk framework is being delayed to the first quarter of 2024.

For additional information, refer to the Capital Management section of this MD&A.

Liquidity Management

To help Canadians through this difficult period caused by the COVID-19 crisis, the Bank of Canada has taken policy actions designed to restore financial market functioning, to ensure that financial institutions have adequate liquidity, and to provide households and businesses with access to the credit they need. To ensure banks have sufficient liquidity to support clients and to alleviate impaired market liquidity in Canada, the central bank has implemented liquidity facilities and asset purchase programs. The liquidity facilities include the existing term repo facility where the terms of the loans have been extended and the list of eligible collateral has been expanded. Also, a new standing term liquidity facility (STLF) has been introduced to complement the existing liquidity tools and to further strengthen the resilience of the Canadian financial system. Asset purchase programs implemented by the Bank of Canada and the Canada Mortgage and Housing Corporation (CMHC) cover a wide range of securities (treasury bills, bankers' acceptances, bonds, and mortgage-backed securities) and issuers (government and corporate). All of these programs have stabilized the funding markets and supported the flow of credit to households and businesses.

The Bank of Canada has also used monetary policy to respond to the COVID-19 crisis. It has lowered its target for the overnight rate by 150 basis points to 0.25%. Longer-term interest rates have also gone down significantly, and the interest rates of the Government of Canada curve are now mostly below 1%. Also, the limit for covered bonds has been temporarily increased to provide better access to Bank of Canada facilities, and banks are allowed to draw on their HQLA assets, thereby falling below the 100% threshold required by the *Liquidity Adequacy Requirements* guideline for the liquidity coverage ratio (LCR).

The Bank entered the crisis with a strong liquidity position, and it has maintained sound and prudent liquidity management throughout the quarter ended April 30, 2020. Deposit levels continued to grow, and the Bank has participated in certain Bank of Canada programs designed to provide credit to its clients and to substitute some short-term funding. In light of the government liquidity facilities and household and business needs, the Bank is maintaining a liquidity buffer that will enable it to further support its clients.

For additional information, refer to the Risk Management – Liquidity and Funding Risk section of the MD&A.

Economic Review and Outlook

Global Economy

The global economy clearly entered a recession in the first quarter of 2020. The cause of the crisis is unprecedented, as it involves an intentional closing of non-essential services by governments to limit the spread of COVID-19. Also unprecedented are the fiscal and monetary measures that have been taken by political leaders to limit economic damage and prepare for recovery. The combined actions of governments has alleviated financial stress, but much uncertainty remains about the magnitude of the economic shock. Ultimately, the impact will depend on the pace at which the economy reopens, whether new waves of infections occur, and whether medical breakthroughs lead to a vaccine or drug that relieves symptoms. The pandemic may also compel governments to review industrial policies and return to local production of critical supplies, including health equipment and pharmaceuticals. A process of deglobalization could accelerate, and belligerent rhetoric between the White House and China does not bode well for relations between the two great economic powers. While an economic rebound is expected in the second half of the year, global GDP should contract by 4%⁽¹⁾ this year.

The longest economic expansion in the United States since World War II has officially ended. The lockdowns declared by governments in March brought the economy to an abrupt halt, triggering a recession that began with a 4.8% annualized contraction in GDP in the first quarter. Since the resulting shutdown of non-essential services lasted several weeks, a much larger contraction is expected in the second quarter. The impact on the labour market in April was apocalyptic, as 22 million jobs were eliminated in the blink of an eye. Within the course of two months, all the jobs created since 1999 disappeared. Millions of these jobs will quickly reappear as the lockdown is gradually lifted and economic growth returns, but the recovery will not be complete, as a certain amount of industrial capacity will likely be permanently destroyed. Even though the U.S. federal government pulled out the big guns and may record a deficit of about 17%⁽¹⁾ of GDP, we expect U.S. GDP to decline 6%⁽¹⁾ in 2020, representing its worst performance since 1946.

Canadian Economy

To counter the adverse impact of social distancing measures, Canadian governments acted swiftly and decisively to support household income and provide financial support to businesses. The International Monetary Fund (IMF) data indicates that Canadian governments are expected to report the largest change in fiscal balance among advanced countries, suggesting the largest stimulus. The Bank of Canada lowered its key rate and provided a massive injection of liquidity into financial markets, which helped ease tensions. While containment measures were fully implemented in April, the employment data gives us an idea of the short-term economic damage. Cumulative job losses arising from closures of non-essential services totalled three million in March and April, representing a dramatic 16% decline in the workforce. However, there is reason to believe that the job loss data underestimates the scale of the economic shock. Some workers have lost their jobs, while others have seen their hours worked greatly reduced. The number of hours worked has tumbled 28% since February in Canada. More restrictive social distancing measures and the economic shock in the energy sector could mean a sharper contraction in Canada than in the United States. GDP is expected to contract by 7.1%⁽¹⁾ in 2020.

Quebec Economy

The Quebec government was one of the first in Canada to order a closure of non-essential services and took a broader approach to 'non-essential' than elsewhere in the country, which meant also shutting down the construction and mining sectors. It is therefore no surprise that economic contraction in the second quarter has been sharper in Quebec, as corroborated by a larger decline in hours worked in April (34%). Since Montreal is the epicentre of the pandemic in Canada, the city's economy may be opened more gradually than elsewhere. While economic activity is poised to rebound as early as May in Quebec, as social distancing measures are gradually lifted, the fact remains that unused labour market capacity is expected to persist for some time. In Quebec as in Canada as a whole, more than one-fifth of jobs are concentrated in sectors that will be tested in the coming months, in particular the retail, hospitality and restaurant, arts and entertainment, and air transport sectors. After Quebec's economy outpaced the rest of Canada's for two years, the year 2020 could see a reversal with an 8.0%⁽¹⁾ contraction in the province's economy. Still, we remain optimistic that the province's economy will rebound more strongly in the coming quarters, as the Quebec government has some fiscal room to maneuver, households are in better financial positions, and housing prices are lower, making them less vulnerable to a correction.

(1) GDP growth expectations, Economics group of National Bank Financial

Highlights

(millions of Canadian dollars, except per share amounts)	Quarter ended April 30			Six months ended April 30		
	2020	2019	% Change	2020	2019	% Change
Operating results						
Total revenues	2,036	1,770	15	3,959	3,569	11
Income before provisions for credit losses and income taxes	915	744	23	1,747	1,517	15
Net income	379	558	(32)	989	1,110	(11)
Net income attributable to the Bank's shareholders	368	539	(32)	962	1,075	(11)
Return on common shareholders' equity	10.7 %	17.8 %		14.3 %	17.5 %	
Earnings per share						
Basic	\$ 1.01	\$ 1.52	(34)	\$ 2.70	\$ 3.03	(11)
Diluted	1.01	1.51	(33)	2.68	3.01	(11)
Operating results on a taxable equivalent basis and excluding specified items⁽¹⁾						
Total revenues on a taxable equivalent basis	2,112	1,850	14	4,122	3,712	11
Income before provisions for credit losses and income taxes on a taxable equivalent basis and excluding specified items	991	824	20	1,923	1,660	16
Net income excluding specified items	379	558	(32)	999	1,110	(10)
Return on common shareholders' equity excluding specified items	10.7 %	17.8 %		14.5 %	17.5 %	
Efficiency ratio on a taxable equivalent basis and excluding specified items	53.1 %	55.5 %		53.3 %	55.3 %	
Earnings per share excluding specified items⁽¹⁾						
Basic	\$ 1.01	\$ 1.52	(34)	\$ 2.73	\$ 3.03	(10)
Diluted	1.01	1.51	(33)	2.71	3.01	(10)
Common share information						
Dividends declared	\$ 0.71	\$ 0.65		\$ 1.42	\$ 1.30	
Book value	38.74	35.49		38.74	35.49	
Share price						
High	74.79	63.82		74.79	63.82	
Low	38.73	60.31		38.73	54.97	
Close	56.14	63.82		56.14	63.82	
Number of common shares (<i>thousands</i>)	335,400	335,116		335,400	335,116	
Market capitalization	18,829	21,387		18,829	21,387	

(millions of Canadian dollars)	As at April 30, 2020	As at October 31, 2019	% Change
Balance sheet and off-balance-sheet			
Total assets	316,950	281,458	13
Loans and acceptances, net of allowances	162,728	153,251	6
Deposits	201,445	189,566	6
Equity attributable to common shareholders	12,995	12,328	5
Assets under administration and under management	548,677	565,396	(3)
Regulatory ratios under Basel III⁽²⁾			
Capital ratios			
Common Equity Tier 1 (CET1)	11.4 %	11.7 %	
Tier 1	14.4 %	15.0 %	
Total	15.5 %	16.1 %	
Leverage ratio	4.4 %	4.0 %	
Liquidity coverage ratio (LCR)	149 %	146 %	
Regulatory ratios under Basel III (adjusted)⁽³⁾			
Capital ratios			
CET1	11.2 %		
Tier 1	14.2 %		
Total	15.5 %		
Leverage ratio	4.3 %		
Other information			
Number of employees – Worldwide	26,589	25,487	4
Number of branches in Canada	413	422	(2)
Number of banking machines in Canada	933	939	(1)

(1) See the Financial Reporting Method section on page 12 for additional information on non-GAAP financial measures.

(2) The ratios as at April 30, 2020 do not include the transitional measures granted by OSFI. For additional information, see the section entitled COVID-19 Pandemic – Key Measures Introduced by the Regulatory Authorities on pages 7 to 9 of this MD&A.

(3) The adjusted ratios as at April 30, 2020 do not include the transitional measure applicable to expected credit loss provisioning. For additional information, see the section entitled COVID-19 Pandemic – Key Measures Introduced by the Regulatory Authorities on pages 7 to 9 of this MD&A.

Financial Reporting Method

As stated in Note 2 to its audited annual consolidated financial statements for the year ended October 31, 2019, the Bank adopted IFRS 16 on November 1, 2019. As permitted by the IFRS 16 transitional provisions, the Bank elected to apply IFRS 16 using the modified retrospective basis, with no restatement of comparative periods. Note 2 to these consolidated financial statements presents the impacts of IFRS 16 adoption on the Bank's Consolidated Balance Sheet as at November 1, 2019 and additional information on adoption of IFRS 16. Since interim consolidated financial statements do not include all of the annual financial statement disclosures required under IFRS, they should be read in conjunction with the audited annual consolidated financial statements and accompanying notes for the year ended October 31, 2019.

Non-GAAP Financial Measures

The Bank uses a number of financial measures when assessing its results and measuring overall performance. Some of these financial measures are not calculated in accordance with GAAP, which are based on IFRS. Presenting non-GAAP financial measures 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 not to be reflective of the underlying performance of the Bank's operations. Securities regulators require companies to caution readers that non-GAAP financial measures do not have standardized meanings under GAAP and therefore may not be comparable to similar measures used by other companies.

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 Information

(millions of Canadian dollars, except per share amounts)	Quarter ended April 30			Six months ended April 30		
	2020	2019	% Change	2020	2019	% Change
Net income excluding specified items⁽¹⁾						
Personal and Commercial	65	230	(72)	316	472	(33)
Wealth Management	141	117	21	276	240	15
Financial Markets	159	158	1	343	326	5
U.S. Specialty Finance and International	74	72	3	159	132	20
Other	(60)	(19)		(95)	(60)	
Net income excluding specified items	379	558	(32)	999	1,110	(10)
Charge related to Maple ⁽²⁾	–	–		(10)	–	
Net income	379	558	(32)	989	1,110	(11)
Diluted earnings per share excluding specified items	\$ 1.01	\$ 1.51	(33)	\$ 2.71	\$ 3.01	(10)
Charge related to Maple ⁽²⁾	–	–		(0.03)	–	
Diluted earnings per share	\$ 1.01	\$ 1.51	(33)	\$ 2.68	\$ 3.01	(11)
Return on common shareholders' equity						
Including specified items	10.7 %	17.8 %		14.3 %	17.5 %	
Excluding specified items	10.7 %	17.8 %		14.5 %	17.5 %	

(1) For the quarter and six-month period ended April 30, 2019, certain amounts have been reclassified.

(2) During the six-month period ended April 30, 2020, the Bank recorded a charge of \$13 million (\$10 million net of income taxes) related to Maple Financial Group Inc. (Maple) in the *Other* heading of segment results following the event that occurred in December 2019, as described in the Contingent Liabilities section on page 23 of this MD&A.

Financial Analysis

Consolidated Results

(millions of Canadian dollars)	Quarter ended April 30			Six months ended April 30		
	2020	2019	% Change	2020	2019	% Change
Operating results						
Net interest income	1,105	942	17	2,035	1,805	13
Non-interest income	931	828	12	1,924	1,764	9
Total revenues	2,036	1,770	15	3,959	3,569	11
Non-interest expenses	1,121	1,026	9	2,212	2,052	8
Income before provisions for credit losses and income taxes	915	744	23	1,747	1,517	15
Provisions for credit losses	504	84	500	593	172	245
Income before income taxes	411	660	(38)	1,154	1,345	(14)
Income taxes	32	102	(69)	165	235	(30)
Net income	379	558	(32)	989	1,110	(11)
Diluted earnings per share (<i>dollars</i>)	1.01	1.51	(33)	2.68	3.01	(11)
Taxable equivalent basis⁽¹⁾						
Net interest income	56	45		113	80	
Non-interest income	20	35		50	63	
Income taxes	76	80		163	143	
Impact of taxable equivalent basis on net income	–	–		–	–	
Specified items⁽¹⁾						
Charge related to Maple	–	–		(13)	–	
Specified items before income taxes	–	–		(13)	–	
Income taxes on specified items	–	–		(3)	–	
Specified items after income taxes	–	–		(10)	–	
Operating results on a taxable equivalent basis and excluding specified items⁽¹⁾						
Net interest income on a taxable equivalent basis	1,161	987	18	2,148	1,885	14
Non-interest income on a taxable equivalent basis	951	863	10	1,974	1,827	8
Total revenues on a taxable equivalent basis	2,112	1,850	14	4,122	3,712	11
Non-interest expenses excluding specified items	1,121	1,026	9	2,199	2,052	7
Income before provisions for credit losses and income taxes on a taxable equivalent basis and excluding specified items	991	824	20	1,923	1,660	16
Provisions for credit losses	504	84	500	593	172	245
Income before income taxes on a taxable equivalent basis and excluding specified items	487	740	(34)	1,330	1,488	(11)
Income taxes on a taxable equivalent basis and excluding specified items	108	182	(41)	331	378	(12)
Net income excluding specified items	379	558	(32)	999	1,110	(10)
Diluted earnings per share excluding specified items (<i>dollars</i>)	1.01	1.51	(33)	2.71	3.01	(10)
Average assets	312,788	283,172	10	307,087	281,268	9
Average loans and acceptances	160,008	147,139	9	157,253	146,602	7
Average deposits	205,097	180,421	14	202,002	178,423	13
Efficiency ratio on a taxable equivalent basis and excluding specified items ⁽¹⁾	53.1 %	55.5 %		53.3 %	55.3 %	

(1) See the Financial Reporting Method section on page 12 for additional information on non-GAAP financial measures.

Financial Results

For the second quarter of 2020, the Bank reported net income of \$379 million compared to \$558 million in the second quarter of 2019. Second-quarter diluted earnings per share stood at \$1.01 compared to \$1.51 in the second quarter of 2019. The decrease in net income was due to a considerable increase in provisions for credit losses recorded to reflect a significant deterioration in the macroeconomic outlook caused by COVID-19 and the expected impacts on our clients. However, income before provisions for credit losses and income taxes on a taxable equivalent basis totalled \$991 million in the second quarter of 2020, a 20% year-over-year increase driven by revenue growth across all business segments.

For the six month-period ended April 30, 2020, the Bank's net income totalled \$989 million, down 11% from \$1,110 million in the same period of 2019, and its first-half diluted earnings per share stood at \$2.68, down 11% from \$3.01 in the same period of 2019. These decreases were essentially due to the credit loss provisions recorded in second quarter 2020 to reflect the impacts of COVID-19. However, income before provisions for credit losses and income taxes on a taxable equivalent basis and excluding specified items totalled \$1,923 million for the six-month period ended April 30, 2020, a 16% year-over-year increase driven by revenue growth across all business segments. The first-half specified item, net of income taxes, consisted of a \$10 million charge related to Maple.

Return on common shareholders' equity was 14.3% for the six months ended April 30, 2020 compared to 17.5% in the same period of 2019.

Total Revenues

For the second quarter of 2020, the Bank's total revenues amounted to \$2,036 million, rising \$266 million or 15% year over year. The Personal and Commercial Banking's second-quarter total revenues were up 2%, driven by growth in loan and deposit volumes and by an increase in revenues from derivative financial instruments. These increases were tempered by a decrease in credit card revenues, as credit card transactions fell due to pandemic-related circumstances, in particular temporary closures of businesses and non-essential services and the lockdown imposed by governments. The Wealth Management segment's total revenues were up 11% owing mainly to an increase in fee-based revenues and in transaction-based and other revenues. In the Financial Markets segment, total revenues on taxable equivalent basis rose 48% owing mainly to a solid increase in global markets revenues. And the USSF&I segment's total revenues were up 3% owing essentially to revenue growth at the ABA Bank subsidiary, partly offset by a decrease in revenues at the Credigy subsidiary, as the fair values of certain loan portfolios were revised downward to reflect unfavourable market conditions. Total revenues on a taxable equivalent basis amounted to \$2,112 million in the second quarter of 2020, up 14% from \$1,850 million in the second quarter of 2019.

For the six-month period ended April 30, 2020, total revenues amounted to \$3,959 million, up \$390 million or 11% from \$3,569 million in the same six-month period of 2019. The Personal and Commercial segment's first-half total revenues were up 3%, mainly due to growth in loan and deposit volumes tempered by lower credit card revenues. The increase in total revenues was also due to higher fee-based revenues and transaction-based and other revenues in the Wealth Management segment. In the Financial Markets segment, first-half total revenues on a taxable equivalent basis rose \$241 million year over year, mainly due to an increase in global markets revenues. Lastly, in the USSF&I segment, first-half total revenues were up 8%, as business growth at ABA Bank drove higher loan and deposit volumes, whereas Credigy's first-half revenues declined year over year. First-half total revenues on a taxable equivalent basis amounted to \$4,122 million, up 11% from \$3,712 million in the same period of 2019.

Non-Interest Expenses

In the second quarter of 2020, non-interest expenses stood at \$1,121 million, up 9% from the second quarter of 2019. The increase in non-interest expenses was mainly due to an increase in compensation and employee benefits, in particular the variable compensation associated with the revenue growth experienced across all business segments. Also contributing to the increase in second-quarter non-interest expenses were the expenses incurred by the Bank to implement health and safety measures for its employees and clients during the exceptional pandemic-related circumstances. These increases were tempered by decreases in certain variable expenses and other discretionary costs.

The first-half non-interest expenses stood at \$2,212 million, up 8% year over year, essentially due to the same reasons as those provided for the second quarter. Other factors contributing to the first-half year-over-year increase in non-interest expenses were higher occupancy fees resulting mainly from the expansion of ABA Bank's banking network as well as higher technology investment expenses incurred as part of the Bank's transformation plan and for business development. In addition, the other expenses item included a \$13 million charge related to Maple in the first six months of 2020.

Provisions for Credit Losses

For the second quarter of 2020, the Bank recorded \$504 million in provisions for credit losses compared to \$84 million in the same quarter of 2019. This considerable increase mainly reflects a significant deterioration in the macroeconomic outlook (in particular GDP growth, the unemployment rate, and oil prices) caused by COVID-19 and the expected impacts of the pandemic on the Bank's clients. The higher credit loss provisions recorded in all business segments relate essentially to provisions on non-impaired loans. Furthermore, Commercial Banking and the Financial Markets segment increased credit loss provisions on impaired loans.

For the six-month period ended April 30, 2020, the Bank recorded \$593 million in provisions for credit losses compared to \$172 million in the same period of 2019. This increase stems from the same reasons as those provided for the second quarter, in particular the significant deterioration in the macroeconomic outlook caused by COVID-19. The higher credit loss provisions on impaired loans recorded by Commercial Banking and by the Financial Markets segment were tempered somewhat by a decrease in the credit loss provisions on impaired loans recorded by the Credigy subsidiary as a result of repayments and maturities in certain loan portfolios.

Income Taxes

For the second quarter of 2020, income taxes stood at \$32 million compared to \$102 million in the same quarter of 2019. The 2020 second-quarter effective tax rate was 8% compared to 15% in second quarter 2019. This change in effective tax rate stems mainly from a decrease in the income tax rate applicable to the ABA subsidiary, as the Cambodian government has granted tax incentive measures, and from a higher proportion of tax-exempt dividend income compared to the same quarter of 2019.

For the six months ended April 30, 2020, the effective income tax rate stood at 14% compared to 17% in the same period of 2019. This change in effective tax rate was due to the same reasons as those provided above for the second quarter.

Results by Segment

The Bank carries out its activities in four business segments: Personal and Commercial, Wealth Management, Financial Markets, and U.S. Specialty Finance and International. For presentation purposes, other operating activities, certain non-recurring items and Treasury activities are grouped in the *Other* heading. Each reportable segment is distinguished by services offered, type of clientele, and marketing strategy.

Personal and Commercial

(millions of Canadian dollars)	Quarter ended April 30			Six months ended April 30		
	2020	2019 ⁽¹⁾	% Change	2020	2019 ⁽¹⁾	% Change
Operating results						
Net interest income	607	578	5	1,218	1,167	4
Non-interest income	241	256	(6)	510	518	(2)
Total revenues	848	834	2	1,728	1,685	3
Non-interest expenses	459	458	–	927	921	1
Income before provisions for credit losses and income taxes	389	376	3	801	764	5
Provisions for credit losses	301	63		371	121	
Income before income taxes	88	313	(72)	430	643	(33)
Income taxes	23	83	(72)	114	171	(33)
Net income	65	230	(72)	316	472	(33)
Net interest margin ⁽²⁾	2.22 %	2.23 %		2.21 %	2.23 %	
Average interest-bearing assets	111,161	106,074	5	110,585	105,726	5
Average assets	117,052	111,910	5	116,493	111,521	4
Average loans and acceptances	116,536	111,433	5	115,986	111,003	4
Net impaired loans ⁽³⁾	399	357	12	399	357	12
Net impaired loans ⁽³⁾ as a % of average loans and acceptances	0.3 %	0.3 %		0.3 %	0.3 %	
Average deposits	63,869	60,578	5	64,131	60,848	5
Efficiency ratio	54.1 %	54.9 %		53.6 %	54.7 %	

(1) For the quarter and six-month period ended April 30, 2019, certain amounts have been reclassified.

(2) Net interest margin is calculated by dividing net interest income by average interest-bearing assets.

(3) Net impaired loans are presented net of allowances for credit losses on Stage 3 loan amounts drawn.

In the Personal and Commercial segment, net income totalled \$65 million in the second quarter of 2020 compared to \$230 million in the second quarter of 2019. This decrease stems essentially from the impacts of the COVID-19 pandemic, in particular a considerable increase in provisions for credit losses recorded to reflect a significant deterioration in the macroeconomic outlook and the expected impacts on the segment's clients. However, the segment's second-quarter income before provisions for credit losses and income taxes was up 3% year over year. The segment's total revenues grew \$14 million, or 2%, mainly due to a \$29 million increase in net interest income driven by growth in personal and commercial loan and deposit volumes, which more than offset the impact of lower interest rates on the segment's revenues. This revenue increase was tempered by a \$15 million decrease in second-quarter non-interest income resulting from lower credit card revenues.

Personal Banking's second-quarter total revenues declined \$3 million year over year. An increase in net interest income, driven by growth in loan and deposit volumes, was tempered by a decrease in credit card revenues, as credit card transactions fell due to pandemic-related circumstances, in particular temporary closures of businesses and non-essential services and the lockdown imposed by governments. As for Commercial Banking's second-quarter total revenues, they rose \$17 million due to higher net interest income and to higher derivative financial instrument revenues.

For the second quarter of 2020, the Personal and Commercial segment's non-interest expenses stood at \$459 million, stable compared to the second quarter of 2019. An increase in compensation and employee benefits was offset by a decrease in operations support charges. At 54.1%, the segment's second-quarter efficiency ratio improved by 0.8 percentage points compared to the second quarter of 2019. The segment recorded \$301 million in provisions for credit losses, a \$238 million year-over-year increase related mainly to higher provisions on non-impaired Personal Banking and Commercial Banking loans and on non-impaired credit card receivables, to reflect a significant deterioration in the macroeconomic outlook caused by COVID-19 and the expected impacts of the pandemic on the segment's clients. The provisions for credit losses on Commercial Banking's impaired loans were also up compared to the same quarter in 2019.

For the six-month period ended April 30, 2020, the Personal and Commercial segment's net income totalled \$316 million, down from \$472 million in the same period of 2019, mainly due to an increase in provisions for credit losses related to the impacts of COVID-19. However, the segment's income before provisions for credit losses and income taxes rose \$37 million or 5%, and its first-half total revenues grew 3% year over year. The growth in Personal Banking's first-half total revenues was due to growth in loan and deposit volumes, tempered by a decrease in card revenues. As for Commercial Banking's first-half total revenues, they were up due to growth in loan and deposit volumes as well as to an increase in bankers' acceptance revenues and an increase in derivative financial instrument revenues. First-half non-interest expenses rose \$6 million or 1% year over year, due to increases in compensation and employee benefits and in technology expenses. These increases were tempered by a decrease in operations support charges and in amortization expense arising from the segment's activities. At 53.6% for the six months ended April 30, 2020, the efficiency ratio improved by 1.1 percentage points compared with the same six-month period of 2019. The segment's first-half provisions for credit losses rose \$250 million year over year, with this increase being due to the same reasons as those provided for the quarter.

Wealth Management

(millions of Canadian dollars)	Quarter ended April 30			Six months ended April 30		
	2020	2019 ⁽¹⁾	% Change	2020	2019 ⁽¹⁾	% Change
Operating results						
Net interest income	110	108	2	229	232	(1)
Fee-based revenues	267	249	7	540	491	10
Transaction-based and other revenues	97	69	41	170	137	24
Total revenues	474	426	11	939	860	9
Non-interest expenses	278	267	4	560	534	5
Income before provisions for credit losses and income taxes	196	159	23	379	326	16
Provisions for credit losses	4	–	–	4	–	–
Income before income taxes	192	159	21	375	326	15
Income taxes	51	42	21	99	86	15
Net income	141	117	21	276	240	15
Average assets	5,984	6,154	(3)	5,963	6,326	(6)
Average loans and acceptances	4,793	4,829	(1)	4,779	4,871	(2)
Net impaired loans ⁽²⁾	3	3	–	3	3	–
Average deposits	34,474	32,486	6	33,441	32,813	2
Assets under administration and under management	548,677	549,391	–	548,677	549,391	–
Efficiency ratio	58.6 %	62.7 %	–	59.6 %	62.1 %	–

(1) For the quarter and six-month period ended April 30, 2019, certain amounts have been reclassified.

(2) Net impaired loans are presented net of allowances for credit losses on Stage 3 loan amounts drawn.

In the Wealth Management segment, net income totalled \$141 million in the second quarter of 2020, a 21% increase from \$117 million in the second quarter of 2019. The segment's second-quarter total revenues amounted to \$474 million, up \$48 million or 11% from \$426 million in the second quarter of 2019. This revenue growth was driven mainly by a 41% increase in transaction-based and other revenues, as volatility in the financial markets during the second quarter of 2020 led to greater trading volume. Fee-based revenues also increased, rising 7%, as the average assets under administration and under management exceeded the average of the second quarter of 2019, despite a decline in value of the assets in the second quarter of 2020 attributable to the current crisis.

For the second quarter of 2020, Wealth Management's non-interest expenses stood at \$278 million, a 4% year-over-year increase arising mainly from higher variable compensation associated with growth in the segment's revenues. At 58.6%, the segment's second-quarter efficiency ratio on a taxable equivalent basis improved by 4.1 percentage points compared to the second quarter of 2019. The segment's second-quarter provisions for credit losses stood at \$4 million; they represent provisions on non-impaired loans and were recorded to reflect a significant deterioration in the macroeconomic outlook caused by COVID-19.

For the six months ended April 30, 2020, the Wealth Management segment's net income totalled \$276 million, up 15% from \$240 million in the same six-month period of 2019. The segment's first-half total revenues amounted to \$939 million, up 9% from \$860 million in the same period of 2019. This increase in fee-based revenues was driven by net inflows into various solutions. First-half transaction-based and other revenues grew 24% year over year owing to an increase in trading volume resulting from stock market volatility during this period. Net interest income was down slightly as a result of smaller deposit margins. First-half non-interest expenses stood at \$560 million compared to \$534 million in first-half 2019, with the increase resulting from higher compensation and employee benefits and higher operations support charges related to the segment's initiatives. At 59.6%, the efficiency ratio for the six-month period ended April 30, 2020 improved from 62.1% in the same period of 2019. The segment's first-half credit loss provisions were up \$4 million year over year, as provisions for credit losses on non-impaired loans were recorded during the second quarter of 2020 to reflect a significant deterioration in the macroeconomic outlook caused by COVID-19.

Financial Markets

(taxable equivalent basis)⁽¹⁾

(millions of Canadian dollars)

	Quarter ended April 30			Six months ended April 30		
	2020	2019 ⁽²⁾	% Change	2020	2019 ⁽²⁾	% Change
Operating results						
Global markets						
Equities	227	123	85	401	260	54
Fixed-income	105	64	64	190	129	47
Commodities and foreign exchange	64	29	121	94	77	22
	396	216	83	685	466	47
Corporate and investment banking	202	189	7	371	349	6
Total revenues on a taxable equivalent basis	598	405	48	1,056	815	30
Non-interest expenses	220	182	21	419	360	16
Income before provisions for credit losses and income taxes on a taxable equivalent basis	378	223	70	637	455	40
Provisions for credit losses	162	7		171	10	
Income before income taxes on a taxable equivalent basis	216	216	–	466	445	5
Income taxes on a taxable equivalent basis	57	58	(2)	123	119	3
Net income	159	158	1	343	326	5
Average assets	120,474	109,485	10	121,049	106,974	13
Average loans and acceptances (Corporate Banking only)	19,436	16,407	18	18,217	16,317	12
Net impaired loans ⁽³⁾	56	3		56	3	
Average deposits	37,039	29,045	28	35,587	28,201	26
Efficiency ratio on a taxable equivalent basis ⁽³⁾	36.8 %	44.9 %		39.7 %	44.2 %	

(1) See the Financial Reporting Method section on page 12 for additional information on non-GAAP financial measures.

(2) For the quarter and six-month period ended April 30, 2019, certain amounts have been reclassified.

(3) Net impaired loans are presented net of allowances for credit losses on Stage 3 loan amounts drawn.

In the Financial Markets segment, net income totalled \$159 million in the second quarter of 2020, up 1% from \$158 million in the second quarter of 2019. Increases across all of the segment's revenue categories were tempered by an increase in provisions for credit losses recorded to reflect a significant deterioration in the macroeconomic outlook caused by COVID-19 and the expected impacts on this segment's clients. Income before provisions for credit losses and income taxes on a taxable equivalent basis totalled \$378 million in the second quarter of 2020, rising \$155 million or 70% from the second quarter of 2019, as the segment was able to benefit from greater business activity in all its business lines. Total revenues on a taxable equivalent basis amounted to \$598 million, up 48% from \$405 million in the second quarter of 2019. Second-quarter global markets revenues grew 83% year over year, as revenues from equity securities and from fixed-income securities were up 85% and 64%, respectively, and revenues from commodities and foreign exchange activities also increased. The segment's second-quarter revenues from corporate and investment banking services were up 7% year over year as a result of higher revenues from merger and acquisition activities and of government bond issuances.

Second-quarter non-interest expenses stood at \$220 million, a 21% year-over-year increase that was essentially due to higher variable compensation associated with revenue growth in the second quarter of 2020 as well as to higher transaction costs associated with business growth. At 36.8%, the second-quarter efficiency ratio on a taxable equivalent basis improved by 8.1 percentage points compared to 44.9% in the second quarter of 2019, with the improvement owing to a sharp increase in the segment's revenues. The segment's second-quarter provisions for credit losses stood at \$162 million compared to \$7 million in the same quarter of 2019. This increase, representing mainly provisions on non-impaired loans, reflects the environment created by COVID-19, in particular a significant deterioration in the macroeconomic outlook and the expected impacts on the segment's clients. As for second-quarter provisions for credit losses on impaired loans, they were up \$15 million year over year.

For the six months ended April 30, 2020, the segment's net income totalled \$343 million, up 5% from the same six-month period in 2019. First-half total revenues on a taxable equivalent basis amounted to \$1,056 million compared to \$815 million for the six months ended April 30, 2019. Income before provisions for credit losses and income taxes on a taxable equivalent basis were up \$182 million or 40% for the six-month period ended April 30, 2020 compared to the same period in 2019. First-half revenues from the Global Markets category increased 47% year over year, with the growth coming from all types of revenues. As for corporate and investment banking revenues, they were up 6% year over year due to revenue growth generated by merger and acquisition activities and by capital markets activities.

First-half non-interest expenses rose \$59 million or 16% year over year, due to an increase in compensation and employee benefits and higher transaction costs associated with business growth. At 39.7%, the first-half efficiency ratio on a taxable equivalent basis improved from 44.2% in the same period of 2019. The segment recorded \$171 million in provisions for credit losses during the six-month period ended April 30, 2020 compared to \$10 million during the same six-month period of 2019, an increase that stems mainly from credit loss provisions on non-impaired loans recorded during the second quarter of 2020 in response to the economic environment created by COVID-19.

U.S. Specialty Finance and International (USSF&I)

(millions of Canadian dollars)	Quarter ended April 30			Six months ended April 30		
	2020	2019	% Change	2020	2019	% Change
Total revenues						
Credigy	82	107	(23)	180	212	(15)
ABA Bank	99	69	43	194	134	45
International	2	2		4	3	
	183	178	3	378	349	8
Non-interest expenses						
Credigy	34	42	(19)	70	78	(10)
ABA Bank	47	31	52	88	62	42
International	1	1		2	2	
	82	74	11	160	142	13
Income before provisions for credit losses and income taxes	101	104	(3)	218	207	5
Provisions for credit losses						
Credigy	24	12		31	35	(11)
ABA Bank	8	2		11	6	83
	32	14	129	42	41	2
Income before income taxes	69	90	(23)	176	166	6
Income taxes	(5)	18		17	34	
Net income	74	72	3	159	132	20
Non-controlling interests	4	12	(67)	13	22	(41)
Net income attributable to the Bank's shareholders	70	60	17	146	110	33
Average assets	14,715	10,600	39	13,592	10,523	29
Average loans and receivables	11,733	8,711	35	10,796	8,760	23
Net impaired loans – Stage 3 ⁽¹⁾	21	16	31	21	16	31
Purchased or originated credit-impaired (POCI) loans	1,105	1,263	(13)	1,105	1,263	(13)
Average deposits	4,813	3,238	49	4,591	2,994	53
Efficiency ratio	44.8 %	41.6 %		42.3 %	40.7 %	

(1) Net impaired loans – Stage 3 exclude POCI loans and are presented net of allowances for credit losses on Stage 3 loan amounts drawn.

In the USSF&I segment, net income totalled \$74 million in the second quarter of 2020, a 3% increase from \$72 million in the same quarter of 2019. Revenue growth posted by the ABA Bank subsidiary was tempered by lower revenues at the Credigy subsidiary, the latter's results having been affected by the economic environment created by the global pandemic. For the six months ended April 30, 2020, the USSF&I segment's net income totalled \$159 million, a 20% increase from \$132 million in the same six-month period of 2019.

Credigy

For the second quarter of 2020, the Credigy subsidiary's net income totalled \$19 million, a 55% decrease from the same quarter of 2019. Credigy's second-quarter total revenues amounted to \$82 million, down from \$107 million in the second quarter of 2019, as the fair values of certain loan portfolios were revised downward to reflect unfavourable market conditions. The subsidiary's second-quarter non-interest expenses were down \$8 million year over year, mainly due to a decrease in variable compensation and collection costs. Credigy recorded \$24 million in credit loss provisions for the second quarter of 2020 compared to \$12 million in the same quarter of 2019, an increase that reflects the significant deterioration in the macroeconomic outlook caused by COVID-19 and the expected impacts on the subsidiary's portfolios.

For the six month-period ended April 30, 2020, the Credigy subsidiary's net income totalled \$62 million, down 21% from the same period of 2019. Credigy's first-half total revenues amounted to \$180 million, down from \$212 million in the first half of 2019 arising from changes in the loan portfolio mix and the impacts of COVID-19. The subsidiary's first-half non-interest expenses were down \$8 million as a result of a decrease in variable compensation and collection costs. Its provisions for credit losses, which totalled \$31 million in the first half of 2020, fell \$4 million from \$35 million in the first half of 2019 as a result of repayments and maturities of certain loan portfolios.

ABA Bank

For the second quarter of 2020, the ABA Bank subsidiary's net income totalled \$54 million, rising 86% from the second quarter of 2019. A 43% increase in ABA Bank's second-quarter revenues was driven by sustained growth in loan and deposit volumes. The subsidiary's second-quarter non-interest expenses rose 52% year over year, mainly due to its growing banking network. For the second quarter of 2020, ABA Bank recorded \$8 million in provisions for credit losses, a year-over-year increase that reflects the expected impacts of the global pandemic on the subsidiary's clients.

For the six month-period ended April 30, 2020, ABA Bank's net income totalled \$95 million, up 79% from the same period in 2019. Year over year, ABA Bank's first-half total revenues rose 45% and its first-half non-interest expenses rose 42%, with both increases owing to the subsidiary's business growth. ABA Bank's provisions for credit losses, totalling \$11 million in the first half of 2020, rose \$5 million year over year.

The subsidiary's effective tax rate was down in both the second quarter and first-half period ended April 30, 2020 due to tax incentive measures granted by the Cambodian government and recorded during the second quarter of 2020.

Other

(taxable equivalent basis)⁽¹⁾
(millions of Canadian dollars)

	Quarter ended April 30		Six months ended April 30	
	2020	2019 ⁽²⁾	2020	2019 ⁽²⁾
Operating results				
Net interest income on a taxable equivalent basis	(27)	(43)	(71)	(93)
Non-interest income on a taxable equivalent basis	36	50	92	96
Total revenues on a taxable equivalent basis	9	7	21	3
Non-interest expenses	82	45	146	95
Income before provisions for credit losses and income taxes on a taxable equivalent basis	(73)	(38)	(125)	(92)
Provisions for credit losses	5	–	5	–
Income before income taxes on a taxable equivalent basis	(78)	(38)	(130)	(92)
Income taxes (recovery) on a taxable equivalent basis	(18)	(19)	(25)	(32)
Net loss	(60)	(19)	(105)	(60)
Non-controlling interests	7	7	14	13
Net loss attributable to the Bank's shareholders	(67)	(26)	(119)	(73)
Specified items after income taxes ⁽¹⁾	–	–	(10)	–
Net loss excluding specified items⁽¹⁾	(60)	(19)	(95)	(60)
Average assets	54,563	45,023	49,990	45,924

(1) See the Financial Reporting Method section on page 12 for additional information on non-GAAP financial measures.

(2) For the quarter and six-month period ended April 30, 2019, certain amounts have been reclassified.

For the *Other* heading of segment results, there was a net loss of \$60 million in the second quarter of 2020 compared to a net loss of \$19 million in the second quarter of 2019. This change in net loss was mainly due to an increase in non-interest expenses, in particular variable compensation, technology investments made to execute the Bank's transformation plan and for business development activities, and expenses incurred by the Bank to implement health and safety measures for employees and clients in response to the exceptional circumstances presented by COVID-19. These increases were tempered by decreases in certain variable expenses and other discretionary costs. In addition, the Bank recorded \$5 million in provisions for credit losses for the second quarter of 2020 to reflect a significant deterioration in the macroeconomic outlook caused by COVID-19.

For the six-month period ended April 30, 2020, there was a net loss of \$105 million compared to a net loss of \$60 million in the same six-month period of 2019. This change in net loss came mainly from an increase in non-interest expenses resulting from the same factors as provided for the quarter and from the Maple-related charge recorded during the first quarter of 2020. These items were partly offset by higher revenues from treasury activities during the first six months of 2020. The specified items for the six-month period ended April 30, 2020, which include the Maple-related charge recorded during the quarter, had a \$10 million unfavourable impact on the net income in the *Other* heading.

Consolidated Balance Sheet

Consolidated Balance Sheet Summary

(millions of Canadian dollars)	As at April 30, 2020	As at October 31, 2019	% Change
Assets			
Cash and deposits with financial institutions	27,800	13,698	103
Securities	84,667	82,226	3
Securities purchased under reverse repurchase agreements and securities borrowed	17,710	17,723	–
Loans and acceptances, net of allowances	162,728	153,251	6
Other	24,045	14,560	65
	316,950	281,458	13
Liabilities and equity			
Deposits	201,445	189,566	6
Other	98,912	75,983	30
Subordinated debt	779	773	1
Equity attributable to the Bank's shareholders	15,445	14,778	5
Non-controlling interests	369	358	3
	316,950	281,458	13

Assets

As at April 30, 2020, the Bank had total assets of \$317.0 billion, a \$35.5 billion or 13% increase from \$281.5 billion as at October 31, 2019. Cash and deposits with financial institutions, totalling \$27.8 billion as at April 30, 2020, increased \$14.1 billion, mainly due to deposits with the Bank of Canada as well as deposits with financial institutions. The increase in the deposits with the Bank of Canada stems partly from the liquidity obtained as part of financing initiatives implemented by the Canadian government through the Bank of Canada, the objective of which is to support the Canadian financial system during the COVID-19 pandemic. The increase in deposits with financial institutions stems from greater deposits with the U.S. Federal Reserve.

Since October 31, 2019, securities rose \$2.5 billion, due to a \$1.2 billion or 2% increase in securities at fair value through profit or loss and a \$1.3 billion increase in securities other than those measured at fair value through profit or loss. Securities purchased under reverse repurchase agreements and securities borrowed remained stable.

Totalling \$162.7 billion as at April 30, 2020, loans and acceptances, net of allowances, rose \$9.4 billion or 6% since October 31, 2019. The following table provides a breakdown of the main loan and acceptance portfolios.

(millions of Canadian dollars)	As at April 30, 2020	As at October 31, 2019	As at April 30, 2019
Loans and acceptances			
Residential mortgage and home equity lines of credit	83,639	80,214	77,052
Personal	13,456	13,901	14,299
Credit card	1,901	2,322	2,324
Business and government	64,765	57,492	55,750
	163,761	153,929	149,425
Allowances for credit losses	(1,033)	(678)	(683)
	162,728	153,251	148,742

Residential mortgages (including home equity lines of credit) were up \$3.4 billion or 4% compared to October 31, 2019 due to sustained demand for mortgage credit as well as to business growth at the ABA Bank subsidiary. Since October 31, 2019, personal loans and credit card receivables each decreased by \$0.4 billion, while loans and acceptances to business and government were up \$7.3 billion or 13% owing to growth in corporate financial services activities and to growth at the Credigy subsidiary.

When compared to April 30, 2019, loans and acceptances grew \$14.0 billion or 9% and residential mortgages (including home equity lines of credit) were up \$6.5 billion or 8% due to sustained demand for mortgage credit and to business growth at the ABA Bank subsidiary, while personal loans were down 6%, a decrease related in part to the Credigy subsidiary following repayments and maturities of certain loan portfolios. Also compared to a year ago, credit card receivables were down \$0.4 billion, while loans and acceptances to business and government grew \$9.0 billion or 16% from a year ago, driven by Commercial Banking activities, Financial Markets activities and Credigy activities.

At \$24.0 billion as at April 30, 2020, other assets increased by \$9.4 billion or 65% since October 31, 2019. This increase stems from a \$7.6 billion increase in derivative financial instruments related to the activities of the Financial Markets segment as well as from a \$1.2 billion increase in other assets, particularly amounts due from clients, dealers and brokers.

Impaired loans include loans classified in Stage 3 of the expected credit loss model and the purchased or originated credit-impaired (POCI) loans of the Credigy subsidiary. As at April 30, 2020, gross impaired loans excluding POCI loans stood at \$780 million compared to \$684 million as at October 31, 2019. Net impaired loans excluding POCI loans stood at \$479 million as at April 30, 2020 compared to \$450 million as at October 31, 2019, a \$29 million increase related mainly to the net impaired loans of the Financial Markets and ABA Bank portfolios, tempered somewhat by a decrease in the net impaired loans of the commercial loan portfolios. Gross POCI loans stood at \$1,105 million as at April 30, 2020, whereas they had stood at \$1,166 million as at October 31, 2019 as a result of repayments and maturities of certain loan portfolios.

Liabilities

As at April 30, 2020, the Bank had total liabilities of \$301.1 billion compared to \$266.3 billion as at October 31, 2019.

The Bank's total deposit liability stood at \$201.4 billion as at April 30, 2020 compared to \$189.6 billion as at October 31, 2019, an \$11.8 billion increase. At \$63.9 billion as at April 30, 2020, personal deposits increased \$3.8 billion since October 31, 2019. This increase stems from Personal Banking activities, the Wealth Management segment's brokerage accounts, and business growth at the ABA Bank subsidiary.

Business and government deposits totalled \$131.8 billion as at April 30, 2020, rising \$6.5 billion from October 31, 2019. This increase came from the funding activities of the Financial Markets segment and of Treasury, including \$3.1 billion in deposits subject to bank recapitalization (bail-in) conversion regulations as well as from the Wealth Management segment's brokerage activities.

At \$5.8 billion as at April 30, 2020, deposits from deposit-taking institutions rose \$1.6 billion since October 31, 2019, an increase that came from treasury funding activities.

As at April 30, 2020, other liabilities stood at \$98.9 billion, a \$22.9 billion or 30% increase since October 31, 2019 that was due to a \$2.6 billion increase in obligations related to securities sold short, a \$12.4 billion increase in obligations related to securities sold under repurchase agreements and securities loaned (which include term repurchase transactions with the Bank of Canada related to the programs implemented to face the COVID-19 crisis), as well as an \$8.3 billion increase in derivative financial instruments.

Equity

As at April 30, 2020, equity attributable to the Bank's shareholders was \$15.4 billion, rising \$0.6 billion from October 31, 2019. This increase came essentially from net income net of dividends, from issuances of common shares under the Stock Option Plan, and from remeasurements of pension plans and other post-employment benefit plans. These increases were partly offset by accumulated other comprehensive income, in particular losses on cash flow hedges, tempered by the foreign currency translation adjustment.

Event After the Consolidated Balance Sheet Date

Redemption of Trust Units Issued by NBC Asset Trust

On May 4, 2020, NBC Asset Trust (the Trust), a closed-end trust established by the Bank, announced its intention to redeem all of the outstanding 350,000 trust units – Series 2 (NBC CapS II – Series 2) on June 30, 2020 at a per-unit price of \$1,000. The redemption was approved by OSFI.

Exposures to Certain Activities

The recommendations made by the Financial Stability Board's Enhanced Disclosure Task Force (EDTF) 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. 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 and Pillar 3 Disclosure* report, which is available on the Bank's website at nbc.ca.

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 April 30, 2020, total commitments for this type of loan stood at \$3,605 million (\$3,559 million as at October 31, 2019). Details about other exposures are provided in the table on structured entities in Note 27 to the audited annual consolidated financial statements for the year ended October 31, 2019.

Related Party Transactions

The Bank's policies and procedures regarding related party transactions have not significantly changed since October 31, 2019. For additional information, see Note 28 to the audited annual consolidated financial statements for the year ended October 31, 2019.

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 at amounts other than their notional or contractual values. These arrangements include, among others, transactions with structured entities, derivative financial instruments, issuances of guarantees, credit instruments, and financial assets received as collateral. A complete analysis of these types of arrangements, including their nature, business purpose and importance, is provided on pages 48 and 49 of the *2019 Annual Report*.

For additional information on guarantees, commitments and structured entities, see Notes 26 and 27 to the audited annual consolidated financial statements for the year ended October 31, 2019. For additional information about financial assets transferred but not derecognized, see Note 8 to these consolidated financial statements.

Income Taxes

In April 2020, the Bank was reassessed by the Canada Revenue Agency (CRA) for additional income tax and interest of approximately \$240 million (including estimated provincial tax and interest) in respect of certain Canadian dividends received by the Bank during 2015.

In prior fiscal years, the Bank was reassessed for additional income tax and interest of approximately \$370 million (including provincial tax and interest) in respect of certain Canadian dividends received by the Bank during the 2014, 2013 and 2012 taxation years.

The transactions to which the above-mentioned reassessments relate are similar to those prospectively addressed by income tax legislation enacted as a result of the 2015 and 2018 Canadian federal budgets.

The CRA may issue reassessments to the Bank for taxation years subsequent to 2015 in regard to activities similar to those that were the subject of the above-mentioned reassessments. The Bank remains confident that its tax position was appropriate and intends to vigorously defend its position. As a result, no amount has been recognized in the consolidated financial statements as at April 30, 2020.

Contingent Liabilities

Maple Financial Group Inc.

The Bank has a 24.9% equity interest in Maple Financial Group Inc. (Maple), a privately owned Canadian company that operated through direct and indirect wholly owned subsidiaries in Canada, Germany, the United Kingdom and the United States.

Maple Bank GmbH (Maple 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 the investigation was focusing on selected trading activities by Maple GmbH and some of its former employees, primarily during taxation years 2006 to 2010. The German authorities have alleged that these trading activities, often referred to as "cum/ex trading," 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. At that time, the Bank announced that if it were determined that portions of the dividends it received from Maple could be reasonably attributed to tax fraud by Maple GmbH, arrangements would be made to repay those amounts to the relevant authority.

On February 6, 2016, the German Federal Financial Supervisory Authority, BaFin, placed a moratorium on the business activities of Maple GmbH preventing it from carrying out its normal business activities. In August 2016, Maple filed for bankruptcy under applicable Canadian laws, and a trustee was appointed to administer the company. Similar proceedings were initiated for each of Maple's other material subsidiaries in their home jurisdictions. 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 was reported in the Financial Markets segment.

While there has not yet been a determination of tax fraud on the part of Maple GmbH or its employees, in the insolvency proceedings of Maple GmbH the German finance office issued a declaration about the result of the tax audit at Maple GmbH and about the relevant tax consequences of the cum/ex trading and concluded a final tax claim of the tax authorities against the insolvency administrator. This claim was approved by the Maple GmbH creditor assembly.

The Bank has been in contact with the German prosecutors, who have confirmed that, in their view based upon the evidence they have considered since the occurrence of the insolvency, the Bank was not involved in any respect with the alleged tax fraud undertaken by Maple GmbH nor was it negligent in failing to identify that alleged fraud. Further to discussions between the Bank and the German prosecutors concerning the amounts deemed attributable to the alleged tax fraud, the Bank paid 7.7 million euros to the German tax authorities on November 19, 2019. As at October 31, 2019, an \$11 million provision was recorded to reflect this adjusting event after the Consolidated Balance Sheet date.

In December 2019, the Bank, together with the other principal Maple shareholders, reached an agreement with the bankruptcy and insolvency administrator of Maple GmbH to settle any potential claims that might be asserted against them by or on behalf of Maple GmbH. In connection with the settlement, the Bank agreed to pay 8.7 million euros for the benefit of Maple GmbH's creditors and, during the first quarter of 2020, recorded a \$13 million charge in the *Non-interest expenses – Other* item presented in the *Other* heading of segment results. The legal process to finalize the agreement has been delayed by virtue of the COVID-19 pandemic; however, all parties involved in the process have agreed to extend the timetable for finalization of the agreement until later in 2020. Upon the finalization of the agreement, the Bank expects that all material liabilities associated with its ownership of Maple will have been resolved.

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. 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 its business activities and accommodate unexpected losses arising from extremely adverse economic and operational conditions. For additional information on the capital management framework, see the Capital Management section on pages 50 to 57 of the Bank's *2019 Annual Report*.

Basel Accord

During the second quarter of 2020, OSFI adjusted regulatory ratio requirements in response to the impact of the COVID-19 pandemic. For additional information, see the section entitled COVID-19 Pandemic – Key Measures Introduced by the Regulatory Authorities on pages 7 to 9 of this MD&A. The Bank and all other major Canadian banks have to maintain minimum capital ratios established by OSFI: a CET1 capital ratio of at least 9.0%, a Tier 1 capital ratio of at least 10.5%, and a Total capital ratio of at least 12.5%. All of these ratios are to include a capital conservation buffer of 2.5% established by the BCBS and OSFI as well as a 1.0% surcharge applicable solely to D-SIBs and a 1.0% domestic stability buffer established by OSFI. The domestic stability buffer, which can vary from 0% to 2.5% of risk-weighted assets, consists exclusively of CET1 capital. A D-SIB that fails to meet this buffer requirement will not be subject to automatic constraints to reduce capital distributions but will have to provide a remediation plan to OSFI. The banks also have to meet the capital floor that sets the regulatory capital level according to the Basel II standardized approach. If the capital requirement under Basel III is less than 70% of the capital requirements as calculated under Basel II, the difference is added to risk-weighted assets. OSFI requires 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.

In addition to those measures, OSFI is requiring 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 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 clause.

OSFI's *Total Loss Absorbing Capacity* (TLAC) guideline, which applies to all D-SIBs under the federal government's bail-in regulations, came into effect on September 23, 2018. The purpose of the TLAC guideline is to ensure that a D-SIB has sufficient loss-absorbing capacity to support its recapitalization in the unlikely event it becomes non-viable. OSFI is requiring D-SIBs to maintain a minimum risk-based TLAC ratio of 22.50% (including the domestic stability buffer) of risk-weighted assets and a minimum TLAC leverage ratio of 6.75% by November 1, 2021. During the fiscal year ended October 31, 2019, the Bank started to issue qualifying bail-in debt and expects its TLAC ratios to improve through the normal refinancing of its maturing unsecured term debt. The Bank does not anticipate any challenges in meeting these TLAC requirements.

Requirements – Regulatory Ratios Under Basel III

	As at April 30, 2020						
	Minimum	Capital conservation buffer	Minimum set by BCBS	D-SIB surcharge	Minimum set by OSFI ⁽¹⁾	Domestic stability buffer ⁽²⁾	Minimum set by OSFI ⁽¹⁾ , including the buffer
Capital ratios							
CET1	4.5 %	2.5 %	7.0 %	1.0 %	8.0 %	1.0 %	9.0 %
Tier 1	6.0 %	2.5 %	8.5 %	1.0 %	9.5 %	1.0 %	10.5 %
Total	8.0 %	2.5 %	10.5 %	1.0 %	11.5 %	1.0 %	12.5 %
Leverage ratio	3.0 %	n.a.	n.a.	n.a.	3.0 %	n.a.	3.0 %

n.a. Not applicable

(1) The capital ratios include the capital conservation buffer and the D-SIB surcharge.

(2) On March 13, 2020, OSFI lowered the buffer level to 1.0%, effective immediately.

The Bank ensures that its capital levels are always above the minimum regulatory capital requirements. 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 and Pillar 3 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.

Regulatory Developments

The Bank closely monitors regulatory developments and participates actively in various consultative processes. During the second quarter of 2020, in response to the impact of COVID-19, OSFI announced a series of regulatory adjustments to support the financial and operational resilience of banks. For additional information, see the section entitled COVID-19 Pandemic – Key Measures Introduced by the Regulatory Authorities on pages 7 to 9 of this MD&A. For additional information on the regulatory context as at October 31, 2019, see page 53 of the Capital Management section in the *2019 Annual Report*. In addition, since November 1, 2019, the below-described regulatory developments should also be considered.

On November 14, 2019, the BCBS issued a consultative document entitled *Revisions to Market Risk Disclosure Requirements*. This document sets out adjustments to the Pillar 3 templates for the revised market risk framework, i.e., adjustments made to reflect the changes made to the final version of *Revisions to the Minimum Capital Requirements for Market Risk* published in January 2019.

On November 14, 2019, the BCBS issued *Voluntary Disclosure of Sovereign Exposures*, a consultative document seeking views on three potential disclosure templates. The document would require banks to disclose their sovereign exposures and risk-weighted assets according to jurisdiction, currency, and accounting classification. Implementation is mandatory for banks only when so required by the national authority in its territory.

On November 28, 2019, the BCBS issued a consultative document entitled *Credit Valuation Adjustment Risk: Targeted Final Revisions*. This document proposes a set of targeted adjustments to the CVA risk framework issued in December 2017. The adjustments are designed to align the revised CVA risk framework with the standards set out in *Minimum Capital Requirements for Market Risk* and in *Capital Requirements for Bank Exposures to Central Counterparties*.

Management Activities

On June 10, 2019, the Bank began a normal course issuer bid to repurchase for cancellation up to 6,000,000 common shares over the 12-month period ending no later than June 9, 2020. During the year ended October 31, 2019, the Bank had repurchased 2,200,000 common shares under this program. During the six-month period ended April 30, 2020, the Bank repurchased 525,000 common shares for \$30 million, which reduced *Common share capital* by \$5 million and *Retained earnings* by \$25 million. These repurchases were carried out before March 13, 2020, which was the date on which OSFI lowered the domestic stability buffer and indicated that it was expecting all banks to cease any dividend increases or share buybacks.

Shares and Stock Options

	As at April 30, 2020	
	Number of shares	\$ million
First preferred shares		
Series 30	14,000,000	350
Series 32	12,000,000	300
Series 34	16,000,000	400
Series 36	16,000,000	400
Series 38	16,000,000	400
Series 40	12,000,000	300
Series 42	12,000,000	300
	98,000,000	2,450
Common shares	335,399,891	3,028
Stock options	12,055,992	

As at May 22, 2020, there were 335,398,962 common shares and 12,055,992 stock options outstanding. NVCC provisions require the conversion of capital instruments into a variable number of common shares should OSFI deem a bank to be non-viable or should the government publicly announce that a bank has accepted or agreed to accept an injection of capital. If an NVCC trigger event were to occur, all of the Bank's preferred shares and medium-term notes maturing on February 1, 2028, which are NVCC capital instruments, would be converted into common shares of the Bank according to an automatic conversion formula at a conversion price corresponding to the greater of the following amounts: (i) a \$5.00 contractual floor price; or (ii) the market price of the Bank's common shares on the date of the trigger event (10-day weighted average price). Based on a \$5.00 floor price and including an estimate for accrued dividends and interest, these NVCC capital instruments would be converted into a maximum of 723 million Bank common shares, which would have a 68.3% dilutive effect based on the number of Bank common shares outstanding as at April 30, 2020.

Movement in Regulatory Capital

(millions of Canadian dollars)	Six months ended April 30, 2020
Common Equity Tier 1 (CET1) capital	
Balance at beginning	9,692
Issuance of common shares (including Stock Option Plan)	74
Impact of shares purchased or sold for trading	–
Repurchase of common shares	(30)
Other contributed surplus	5
Dividends on preferred and common shares	(534)
Net income attributable to the Bank's shareholders	962
Removal of own credit spread (net of income taxes)	(112)
Other	343
Movements in accumulated other comprehensive income	
Translation adjustments	111
Debt securities at fair value through other comprehensive income	40
Other	3
Change in goodwill and intangible assets (net of related tax liability)	(48)
Other, including regulatory adjustments and transitional arrangements	
Change in defined benefit pension plan asset (net of related tax liability)	(110)
Change in amount exceeding 15% threshold	
Deferred tax assets	–
Significant investment in common shares of financial institutions	–
Deferred tax assets, unless they result from temporary differences (net of related tax liability)	(31)
Other deductions or regulatory adjustments to CET1 implemented by OSFI ⁽¹⁾	203
Change in other regulatory adjustments ⁽²⁾	–
Balance at end	10,568
Additional Tier 1 capital	
Balance at beginning	2,800
New Tier 1 eligible capital issuances	–
Redeemed capital	–
Change in non-qualifying Additional Tier 1 subject to phase-out	–
Other, including regulatory adjustments and transitional arrangements	–
Balance at end	2,800
Total Tier 1 capital	13,368
Tier 2 capital	
Balance at beginning	874
New Tier 2 eligible capital issuances	–
Redeemed capital	–
Change in non-qualifying Tier 2 subject to phase-out	–
Tier 2 instruments issued by subsidiaries and held by third parties	–
Change in certain allowances for credit losses	119
Other, including regulatory adjustments and transitional arrangements	9
Balance at end	1,002
Total regulatory capital	14,370

- (1) This item includes the transitional measure applicable to expected credit loss provisioning implemented during the quarter ended April 30, 2020. For additional information, see the section entitled COVID-19 Pandemic – Key Measures Introduced by the Regulatory Authorities on pages 7 to 9 of this MD&A.
- (2) This item includes the change in investments in the Bank's CET1 capital.

Risk-Weighted Assets by Key Risk Drivers

CET1 risk-weighted assets (RWA) amounted to \$92.8 billion as at April 30, 2020 compared to \$83.0 billion as at October 31, 2019, a \$9.8 billion increase resulting mainly from organic growth in RWA, from foreign exchange movements, and from changes to the calculation method resulting from regulatory changes. For credit risk, these changes include the expiry of transitional arrangements for specific wrong-way risk and for the revised securitization framework as well as the adoption of IFRS 16. For market risk, transitional measures were implemented to respond to the volatility caused by the COVID-19 pandemic. The changes in the Bank's risk-weighted assets by risk type are presented in the following table.

Risk-Weighted Assets Movements by Key Drivers

(millions of Canadian dollars)			Quarter ended		
			April 30, 2020	January 31, 2020	October 31, 2019
	Non-counterparty credit risk	Counterparty credit risk	Total	Total	Total
Credit risk – Risk-weighted assets at beginning	63,440	6,705	70,145	67,254	65,693
Book size	4,969	355	5,324	1,650	1,979
Book quality	(59)	109	50	(77)	11
Model updates	112	–	112	(17)	(46)
Methodology and policy	–	–	–	1,246	(362)
Acquisitions and disposals	–	–	–	–	–
Foreign exchange movements	884	142	1,026	89	(21)
Credit risk – Risk-weighted assets at end	69,346	7,311	76,657	70,145	67,254
Market risk – Risk-weighted assets at beginning			4,397	4,276	3,972
Movement in risk levels ⁽¹⁾			1,441	121	304
Model updates			–	–	–
Methodology and policy			(1,717)	–	–
Acquisitions and disposals			–	–	–
Market risk – Risk-weighted assets at end			4,121	4,397	4,276
Operational risk – Risk-weighted assets at beginning			11,664	11,509	11,319
Movement in risk levels			313	155	190
Acquisitions and disposals			–	–	–
Operational risk – Risk-weighted assets at end			11,977	11,664	11,509
Risk-weighted assets at end			92,755	86,206	83,039

(1) Also includes foreign exchange rate movements that are not considered material.

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

The *Book size* item reflects organic changes in book 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 and also including risk mitigation factors.

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.

The *Methodology and policy* item presents the impact of changes in calculation methods resulting from changes in regulatory policies as a result, for example, of new regulations. During the quarter ended January 31, 2020, the transitional arrangements for specific wrong-way risk and for the revised securitization framework expired. On November 1, 2019, the Bank had also adopted IFRS 16 and recognized right-of-use assets. During the quarter ended April 30, 2020, OSFI introduced provisional measures for market risk in response to the volatility caused by the COVID-19 pandemic.

Regulatory Capital Ratios

As at April 30, 2020, the Bank's CET1, Tier 1, and Total capital ratios were, respectively, 11.4%, 14.4% and 15.5%, i.e., above the regulatory requirements, compared to ratios of, respectively, 11.7%, 15.0% and 16.1% as at October 31, 2019. The decrease in the CET1 capital ratio since October 31, 2019 was essentially due to growth in risk-weight assets. Also contributing to this decrease was the expiry of transitional arrangements for specific wrong-way risk and for the revised securitization framework as well as the adoption of IFRS 16. However, this decrease in the CET1 capital ratio was partly offset by net income net of dividends, the transitional measures applicable to ECL provisioning, common share issuances under the Stock Option Plan, and remeasurements of pension plans and other post-employment benefit plans. The decreases in the Tier 1 capital ratio and the Total capital ratio were essentially due to the same factors. As at April 30, 2020, the leverage ratio was 4.4%, an increase from 4.0% as at October 31, 2019. Growth in Tier 1 capital was more than offset by a decrease in total exposure, mainly from temporary measures announced by OSFI with respect to the exclusion of exposures from central bank reserves and sovereign-issued securities that qualify as HQLA securities under the *Liquidity Adequacy Requirements* guideline.

Regulatory Capital and Ratios Under Basel III

(millions of Canadian dollars)	As at April 30, 2020 Adjusted ⁽¹⁾	As at April 30, 2020	As at October 31, 2019
Capital			
CET1	10,365	10,568	9,692
Tier 1	13,165	13,368	12,492
Total	14,370	14,370	13,366
Risk-weighted assets	92,755	92,755	83,039
Total exposure	306,386	306,386	308,902
Capital ratios			
CET1	11.2 %	11.4 %	11.7 %
Tier 1	14.2 %	14.4 %	15.0 %
Total	15.5 %	15.5 %	16.1 %
Leverage ratio	4.3 %	4.4 %	4.0 %

(1) The Basel III regulatory capital and ratios adjusted as at April 30, 2020 do not include the transitional measure applicable to expected credit loss provisioning. For additional information, see the section entitled COVID-19 Pandemic – Key Measures Introduced by the Regulatory Authorities on pages 7 to 9 of this MD&A.

Dividends

On May 26, 2020, the Board of Directors declared regular dividends on the various series of first preferred shares and a dividend of 71 cents per common share, payable on August 1, 2020 to shareholders of record on June 29, 2020.

Risk Management

Risk-taking is intrinsic to a financial institution's business. The Bank views risk as an integral part of its development and the diversification of its activities. It advocates a risk management approach consistent with its business strategy. The Bank voluntarily exposes itself to certain risk categories, particularly credit and market risk, in order to generate revenue. It assumes certain 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 risks.

COVID-19 has affected the general economic environment and financial market conditions in Canada, the United States, and certain other countries where the Bank conducts business. COVID-19 has also put certain risks into perspective. Despite the exceptional nature of this situation, risks are rigorously managed. Consequently, decision-making is supported by risk assessments and management processes that are consistent with the Bank's risk appetite and by prudent levels of capital and liquidity. The purpose of sound and effective risk management is to provide reasonable assurance that incurred risks do not exceed acceptable thresholds, to control the volatility in the Bank's results, and to ensure that risk-taking contributes to the creation of shareholder value. The Bank's governance structure for risk management has remained largely unchanged from that described in the *2019 Annual Report*. In addition, during the quarter ended April 30, 2020, the Bank accelerated and increased the frequency of certain risk management activities.

Despite the exercise of stringent risk management and the mitigation measures in place, risk cannot be suppressed entirely, and residual risks may occasionally cause significant losses. Certain risks are discussed hereafter. For additional information, refer to the section entitled COVID-19 Pandemic – Risk Factors on pages 4 and 5 of this MD&A and to the Risk Management section on pages 58 to 94 of the *2019 Annual Report*. Risk management information is also provided in Note 7 to the consolidated financial statements, which covers loans.

Credit Risk

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 debtors, issuers, counterparties or guarantors. Credit risk is the most significant risk facing the Bank in the normal course of business. COVID-19 has had an adverse impact on local and global economies, creating a difficult environment for obligors. It has produced an exceptional environment characterized by major disruptions throughout the market as a whole, including business closures, temporary layoffs, and declining oil prices. However, government measures have been implemented to help individuals and businesses affected by COVID-19.

The amounts shown in the following table 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 table also excludes equity securities.

Maximum Credit Risk Exposure Under the Basel Asset Categories

(millions of Canadian dollars)						As at April 30, 2020	As at October 31, 2019
	Drawn	Undrawn commitments	Repo-style transactions ⁽¹⁾	Derivative financial instruments	Other off-balance- sheet items ⁽²⁾	Total	Total
Retail							
Residential mortgages	53,058	9,217	–	–	–	62,275	59,140
Qualifying revolving retail	2,982	7,720	–	–	–	10,702	5,586
Other retail	13,702	2,349	–	–	21	16,072	16,189
	69,742	19,286	–	–	21	89,049	80,915
Non-retail							
Corporate	62,967	21,211	22,948	2	4,633	111,761	102,157
Sovereign	54,209	5,464	62,156	126	115	122,070	82,419
Financial institutions	5,542	419	90,539	1,395	555	98,450	105,643
	122,718	27,094	175,643	1,523	5,303	332,281	290,219
Trading portfolio	–	–	–	14,640	–	14,640	12,015
Securitization	1,889	–	–	–	3,045	4,934	4,764
Total – Gross credit risk	194,349	46,380	175,643	16,163	8,369	440,904	387,913
Standardized Approach	19,724	494	13,182	1,556	280	35,236	48,408
AIRB Approach	174,625	45,886	162,461	14,607	8,089	405,668	339,505
Total – Gross credit risk	194,349	46,380	175,643	16,163	8,369	440,904	387,913

(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.

To meet OSFI's mortgage loan disclosure requirements, additional information has been provided in *Supplementary Financial Information – Second Quarter 2020* and in *Supplementary Regulatory Capital and Pillar 3 Disclosure – Second Quarter 2020*, which are available on the Bank's website at nbc.ca.

Market Risk

Market risk is the risk of losses arising from movements in market prices. The Bank is exposed to market risk through its participation in trading, investment and asset/liability management activities. Given the impact of COVID-19 on local and global economies, the Bank is operating in a challenging and volatile environment. It is an exceptional situation that has led to major disruptions throughout the market as a whole, including low interest rates, stock market downturns, and declines in oil prices.

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 Value-at-Risk (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 April 30, 2020			
	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	27,800	410	16,842	10,548	Interest rate ⁽³⁾
Securities					
At fair value through profit or loss	62,980	59,371	3,609	–	Interest rate ⁽³⁾ and equity
At fair value through other comprehensive income	11,441	–	11,441	–	Interest rate ⁽³⁾ and equity ⁽⁴⁾
At amortized cost	10,246	–	10,246	–	Interest rate ⁽³⁾
Securities purchased under reverse repurchase agreements and securities borrowed	17,710	–	17,710	–	Interest rate ⁽³⁾⁽⁵⁾
Loans and acceptances, net of allowances	162,728	6,739	155,989	–	Interest rate ⁽³⁾
Derivative financial instruments	15,747	13,479	2,268	–	Interest rate and exchange rate
Defined benefit asset	179	–	179	–	Other
Other	8,119	–	–	8,119	
	316,950	79,999	218,284	18,667	
Liabilities					
Deposits	201,445	9,543	191,902	–	Interest rate ⁽³⁾
Acceptances	7,042	–	7,042	–	Interest rate ⁽³⁾
Obligations related to securities sold short	15,421	15,421	–	–	
Obligations related to securities sold under repurchase agreements and securities loaned	34,345	–	34,345	–	Interest rate ⁽³⁾⁽⁵⁾
Derivative financial instruments	15,200	12,595	2,605	–	Interest rate and exchange rate
Liabilities related to transferred receivables	21,239	5,437	15,802	–	Interest rate ⁽³⁾
Defined benefit liability	182	–	182	–	Other
Other	5,483	–	36	5,447	Interest rate ⁽³⁾
Subordinated debt	779	–	779	–	Interest rate ⁽³⁾
	301,136	42,996	252,693	5,447	

(1) Trading positions whose risk measures are VaR and SVaR. For additional information, see the tables that show the VaR and SVaR distributions of the trading portfolios by risk category as well as their correlation effect, which are presented on the following pages and in the Market Risk section of the *2019 Annual Report*.

(2) Non-trading positions that use other risk measures.

(3) For additional information, see the tables 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, which are presented on the following pages and in the Market Risk section of the *2019 Annual Report*.

(4) The fair value of equity securities designated at fair value through other comprehensive income is presented in Notes 4 and 6 to the consolidated financial statements.

(5) These instruments are recorded at amortized cost and are subject to credit risk for capital management purposes. For trading-related transactions with maturities of more than one day, interest rate risk is included in the VaR and SVaR measures.

(millions of Canadian dollars)

As at October 31, 2019

	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	13,698	579	12,609	510	Interest rate ⁽³⁾
Securities					
At fair value through profit or loss	61,823	58,170	3,653	–	Interest rate ⁽³⁾ and equity ⁽⁴⁾
At fair value through other comprehensive income	10,648	–	10,648	–	Interest rate ⁽³⁾ and equity ⁽⁵⁾
Amortized cost	9,755	–	9,755	–	Interest rate ⁽³⁾
Securities purchased under reverse repurchase agreements and securities borrowed	17,723	–	17,723	–	Interest rate ⁽³⁾⁽⁶⁾
Loans and acceptances, net of allowances	153,251	6,060	147,191	–	Interest rate ⁽³⁾
Derivative financial instruments	8,129	7,134	995	–	Interest rate ⁽⁷⁾ and exchange rate ⁽⁷⁾
Defined benefit asset	38	–	38	–	Other ⁽⁸⁾
Other	6,393	–	–	6,393	
	281,458	71,943	202,612	6,903	
Liabilities					
Deposits	189,566	9,869	179,697	–	Interest rate ⁽³⁾
Acceptances	6,893	–	6,893	–	Interest rate ⁽³⁾
Obligations related to securities sold short	12,849	12,849	–	–	
Obligations related to securities sold under repurchase agreements and securities loaned	21,900	–	21,900	–	Interest rate ⁽³⁾⁽⁶⁾
Derivative financial instruments	6,852	6,123	729	–	Interest rate ⁽⁷⁾ and exchange rate ⁽⁷⁾
Liabilities related to transferred receivables	21,312	5,165	16,147	–	Interest rate ⁽³⁾
Defined benefit liability	374	–	374	–	Other ⁽⁸⁾
Other	5,803	24	911	4,868	Interest rate ⁽³⁾
Subordinated debt	773	–	773	–	Interest rate ⁽³⁾
	266,322	34,030	227,424	4,868	

- (1) Trading positions whose risk measures are VaR and SVaR. For additional information, see the tables that show the VaR and SVaR distributions of the trading portfolios by risk category as well as their correlation effect, which are presented on the following pages and in the Market Risk section of the *2019 Annual Report*.
- (2) Non-trading positions that use other risk measures.
- (3) For additional information, see the tables 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, which are presented below and on the following page as well as in the Market Risk section of the *2019 Annual Report*.
- (4) For additional information, see Note 6 to the audited annual consolidated financial statements for the fiscal year ended October 31, 2019.
- (5) The fair value of equity securities designated at fair value through other comprehensive income is presented in Notes 4 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 trading-related transactions with maturities of more than one day, interest rate risk is included in the VaR and SVaR measures.
- (7) For additional information, see Notes 16 and 17 to the audited annual consolidated financial statements for the year ended October 31, 2019.
- (8) For additional information, see Note 23 to the audited annual consolidated financial statements for the year ended October 31, 2019.

Trading Activities

The first table below shows the VaR of trading portfolios by risk category as well as their correlation effect. The second table on the next page shows the SVaR, 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)

	Quarter ended								Six months ended	
	April 30, 2020				January 31, 2020		April 30, 2019		April 30, 2020	April 30, 2019
	Low	High	Average	Period end	Average	Period end	Average	Period end	Average	Average
Interest rate	(4.4)	(15.6)	(8.9)	(9.1)	(4.9)	(4.5)	(5.1)	(4.4)	(6.9)	(5.4)
Exchange rate	(0.3)	(2.7)	(1.0)	(0.9)	(0.8)	(0.7)	(0.8)	(0.6)	(0.9)	(0.8)
Equity	(3.0)	(16.0)	(8.3)	(16.0)	(3.4)	(4.0)	(4.0)	(3.1)	(5.9)	(4.2)
Commodity	(0.6)	(1.9)	(1.1)	(0.9)	(1.1)	(0.8)	(1.0)	(1.1)	(1.1)	(1.1)
Correlation effect ⁽²⁾	n.m.	n.m.	9.8	8.1	4.6	5.1	5.2	4.9	7.2	5.4
Total trading VaR	(4.6)	(18.8)	(9.5)	(18.8)	(5.6)	(4.9)	(5.7)	(4.3)	(7.6)	(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)	Quarter ended								Six months ended	
	April 30, 2020				January 31, 2020		April 30, 2019		April 30, 2020	April 30, 2019
	Low	High	Average	Period end	Average	Period end	Average	Period end	Average	Average
Interest rate	(12.0)	(23.2)	(16.8)	(14.6)	(14.7)	(11.2)	(15.5)	(15.2)	(15.8)	(14.9)
Exchange rate	(0.3)	(9.1)	(2.0)	(1.6)	(1.4)	(0.7)	(1.1)	(0.9)	(1.7)	(1.3)
Equity	(5.7)	(36.1)	(17.4)	(20.9)	(8.7)	(7.7)	(6.1)	(5.3)	(13.1)	(7.2)
Commodity	(1.3)	(2.6)	(1.9)	(1.8)	(2.1)	(2.3)	(2.0)	(2.3)	(2.0)	(2.2)
Correlation effect ⁽²⁾	n.m.	n.m.	19.5	14.8	10.5	10.4	12.3	12.3	15.1	13.4
Total trading SVaR	(9.6)	(39.9)	(18.6)	(24.1)	(16.4)	(11.5)	(12.4)	(11.4)	(17.5)	(12.2)

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.

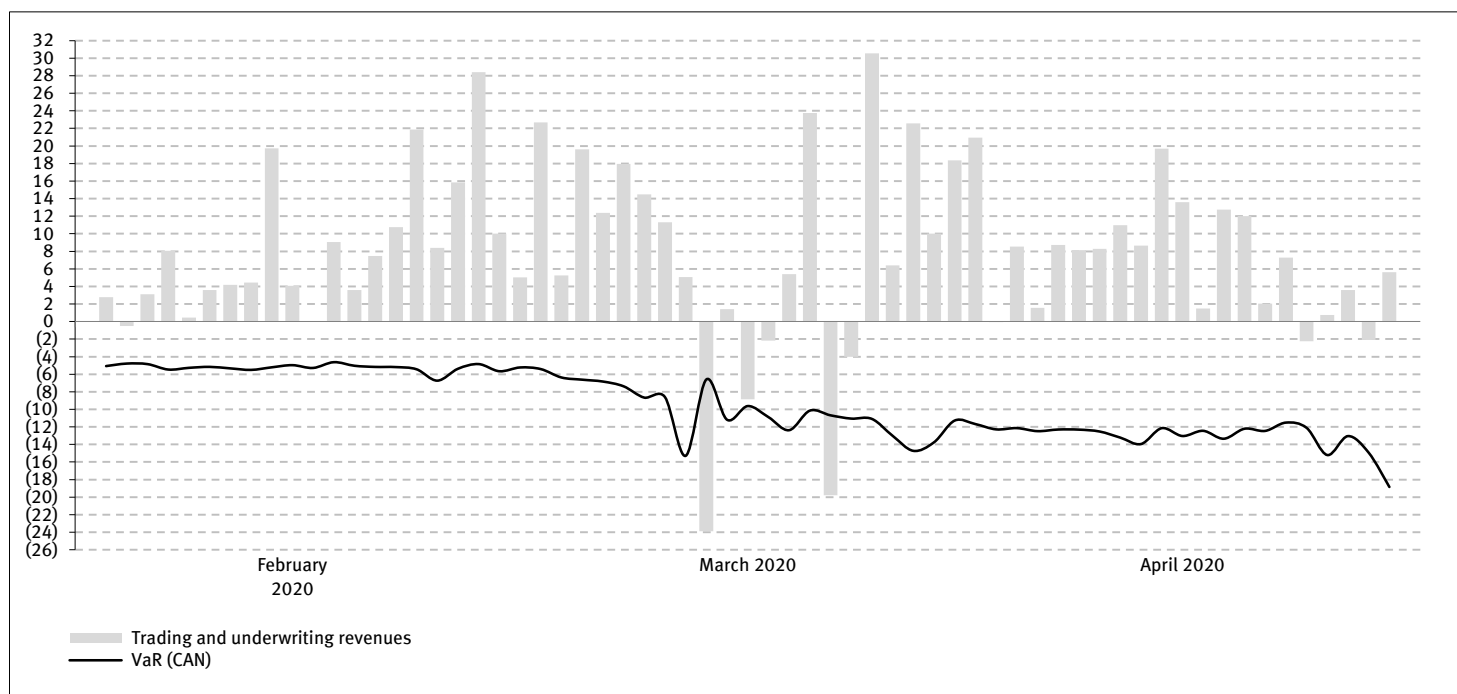
The average total trading VaR increased from \$5.6 million to \$9.5 million between the first quarter of 2020 and the second quarter of 2020, mainly as a result of tail scenarios being added to the two-year VaR history window due to increased market volatility related to the COVID-19 crisis. For the second quarter of 2020, the average total trading SVaR increased from \$16.4 million to \$18.6 million, mainly explained by increases in equity risk and interest rate risk.

Daily Trading and Underwriting Revenues

The following table shows daily trading and underwriting revenues as well as VaR. During the quarter ended April 30, 2020, daily trading and underwriting revenues were positive 85% of the days. Seven trading days were marked by daily trading and underwriting net losses of more than \$1 million, and on two of those days, the losses exceeded the VaR. Those two days of losses occurred in March 2020 as a result of significant market volatility caused by the COVID-19 crisis.

Quarter Ended April 30, 2020

(millions of Canadian dollars)



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

The following tables present the potential before-tax impact of an immediate and sustained 100-basis-point increase or of an immediate and sustained 25-basis-point decrease in interest rates on the economic value of equity and on the net interest income of the Bank's non-trading portfolios for the next 12 months, assuming no further hedging is undertaken. In the current environment of very low interest rates, we believe that a sensitivity analysis reflecting an immediate and sustained 25-basis-point decrease in interest rates provides more relevant information.

(millions of Canadian dollars)	As at April 30, 2020			As at October 31, 2019		
	Canadian dollar	Other currencies	Total	Canadian dollar	Other currencies	Total
Impact on equity						
100-basis-point increase in the interest rate	(187)	25	(162)	(178)	40	(138)
25-basis-point decrease in the interest rate	35	4	39	54	(1)	53
Impact on net interest income						
100-basis-point increase in the interest rate	(17)	32	15	(26)	42	16
25-basis-point decrease in the interest rate	2	3	5	19	(2)	17

Liquidity and Funding Risk

Liquidity and funding risk are the risks 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 from the characteristics of certain products such as credit commitments and non-fixed-term deposits.

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 funding management priority is to achieve an optimal balance between deposits, securitization, secured funding and unsecured funding. This brings optimal stability to the funding and reduces vulnerability to unpredictable events.

COVID-19 has affected overall economic and market conditions. The Bank is facing a challenging and volatile environment, but its sound liquidity and funding management is helping it to maintain an optimal balance between its sources of cash and anticipated payments.

Regulatory Developments

On March 27, 2020, OSFI took exceptional measures in response to the operational issues caused by the spread of COVID-19. OSFI expects banks to use the unencumbered HQLA assets they hold within the liquidity coverage ratio (LCR) as a defense against both a potential liquidity crisis and an actual liquidity crisis. OSFI is also providing guidance on how to treat the new government facilities when calculating regulatory liquidity ratios. In addition, the Bank of Canada has taken more elaborate measures to ensure that the financial system continues to play its role by granting credit to those who need it. For additional information, see the section entitled COVID-19 Pandemic – Key Measures Introduced by the Regulatory Authorities on pages 7 to 9 of this MD&A.

On April 9, 2020, OSFI issued a news release announcing regulatory flexibility measures to support COVID-19 efforts. The news release mentions that implementations of changes to specific regulatory returns would be delayed to help limit the impact on institutions while ensuring that important data will continue to be collected.

The Bank continues to closely monitor regulatory developments and participates actively in various consultative processes. For additional information on the regulatory context as at October 31, 2019, see page 82 of the Risk Management section in the *2019 Annual Report*.

Liquidity Management

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. The majority of unencumbered liquid assets are held in Canadian dollars. Moreover, all assets that can be quickly monetized are considered liquid assets. The following tables provide information on the Bank's encumbered and unencumbered assets.

Liquid Asset Portfolio

(millions of Canadian dollars)	As at April 30, 2020					As at October 31, 2019
	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	27,800	–	27,800	5,533	22,267	9,596
Securities						
Issued or guaranteed by the Canadian government, U.S. Treasury, other U.S. agencies and other foreign governments	28,483	24,888	53,371	33,019	20,352	23,455
Issued or guaranteed by Canadian provincial and municipal governments	14,420	6,847	21,267	15,815	5,452	6,145
Other debt securities	7,477	1,772	9,249	2,624	6,625	5,581
Equity securities	34,287	30,357	64,644	40,408	24,236	26,968
Loans						
Securities backed by insured residential mortgages	9,541	–	9,541	5,432	4,109	2,926
As at April 30, 2020	122,008	63,864	185,872	102,831	83,041	
As at October 31, 2019	103,346	55,310	158,656	83,985		74,671

(millions of Canadian dollars)	As at April 30, 2020	As at October 31, 2019
Unencumbered liquid assets by entity		
National Bank (parent)	33,683	30,380
Domestic subsidiaries	25,686	14,815
Foreign subsidiaries and branches	23,672	29,476
	83,041	74,671

(millions of Canadian dollars)	As at April 30, 2020	As at October 31, 2019
Unencumbered liquid assets by currency		
Canadian dollar	44,064	39,172
U.S. dollar	17,340	19,356
Other currencies	21,637	16,143
	83,041	74,671

Liquid Asset Portfolio – Average⁽⁴⁾

(millions of Canadian dollars)	Quarter ended					Quarter ended
	Bank-owned liquid assets ⁽¹⁾	Liquid assets received ⁽²⁾	Total liquid assets	Encumbered liquid assets ⁽³⁾	April 30, 2020 Unencumbered liquid assets	October 31, 2019 Unencumbered liquid assets
Cash and deposits with financial institutions	22,202	–	22,202	5,288	16,914	7,852
Securities						
Issued or guaranteed by the Canadian government, U.S. Treasury, other U.S. agencies and other foreign governments	28,245	21,558	49,803	30,690	19,113	23,542
Issued or guaranteed by Canadian provincial and municipal governments	12,724	7,152	19,876	14,244	5,632	4,923
Other debt securities	6,465	1,888	8,353	2,296	6,057	5,074
Equity securities	39,757	28,921	68,678	41,364	27,314	30,636
Loans						
Securities backed by insured residential mortgages	9,209	–	9,209	5,288	3,921	2,967
	118,602	59,519	178,121	99,170	78,951	74,994

(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 three months of the quarter divided by three.

Summary of Encumbered and Unencumbered Assets

(millions of Canadian dollars)	As at April 30, 2020					
	Encumbered assets ⁽¹⁾		Unencumbered assets		Total	Encumbered assets as a % of total assets
	Pledged as collateral	Other ⁽²⁾	Available as collateral	Other ⁽³⁾		
Cash and deposits with financial institutions	200	5,333	22,267	–	27,800	1.7
Securities	30,290	–	54,377	–	84,667	9.6
Securities purchased under reverse repurchase agreements and securities borrowed	–	15,422	2,288	–	17,710	4.9
Loans and acceptances, net of allowances	35,903	–	4,109	122,716	162,728	11.3
Derivative financial instruments	–	–	–	15,747	15,747	–
Investments in associates and joint ventures	–	–	–	393	393	–
Premises and equipment	–	–	–	1,175	1,175	–
Goodwill	–	–	–	1,423	1,423	–
Intangible assets	–	–	–	1,444	1,444	–
Other assets	–	–	–	3,863	3,863	–
	66,393	20,755	83,041	146,761	316,950	27.5

(millions of Canadian dollars)	As at October 31, 2019					
	Encumbered assets ⁽¹⁾		Unencumbered assets		Total	Encumbered assets as a % of total assets
	Pledged as collateral	Other ⁽²⁾	Available as collateral	Other ⁽³⁾		
Cash and deposits with financial institutions	143	3,959	9,596	–	13,698	1.4
Securities	24,950	–	57,276	–	82,226	8.9
Securities purchased under reverse repurchase agreements and securities borrowed	–	12,850	4,873	–	17,723	4.6
Loans and acceptances, net of allowances	31,835	–	2,926	118,490	153,251	11.3
Derivative financial instruments	–	–	–	8,129	8,129	–
Investments in associates and joint ventures	–	–	–	385	385	–
Premises and equipment	–	–	–	490	490	–
Goodwill	–	–	–	1,412	1,412	–
Intangible assets	–	–	–	1,406	1,406	–
Other assets	–	–	–	2,738	2,738	–
	56,928	16,809	74,671	133,050	281,458	26.2

- (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 the covered bond program.
- (2) Other encumbered assets include assets for which there are restrictions and that cannot therefore 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 (e.g., mortgages insured by the Canada Mortgage and Housing Corporation that can be securitized into mortgage-backed securities under the *National Housing Act* (Canada)).

Liquidity Coverage Ratio (LCR)

The LCR was introduced primarily to ensure that banks could withstand periods of severe short-term stress. OSFI has been requiring Canadian banks to maintain a minimum LCR of 100%. 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 daily figures in the quarter. For the quarter ended April 30, 2020, the Bank's average LCR was 149%, 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		
		April 30, 2020	January 31, 2020
	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.	50,642	46,222
Cash outflows			
2 Retail deposits and deposits from small business customers, of which:	46,985	4,010	3,397
3 Stable deposits	22,364	671	602
4 Less stable deposits	24,621	3,339	2,795
5 Unsecured wholesale funding, of which:	79,560	43,962	43,522
6 Operational deposits (all counterparties)	14,289	3,445	3,281
7 Non-operational deposits (all counterparties)	56,762	32,008	32,254
8 Unsecured debt	8,509	8,509	7,987
9 Secured wholesale funding	n.a.	14,344	16,446
10 Additional requirements, of which:	40,124	11,973	10,836
11 Outflows related to derivative exposures and other collateral requirements	11,916	6,496	5,877
12 Outflows related to loss of funding on secured debt securities	1,345	1,345	879
13 Backstop liquidity and credit enhancement facilities and commitments to extend credit	26,863	4,132	4,080
14 Other contractual commitments to extend credit	2,117	840	1,006
15 Other contingent commitments to extend credit	94,627	1,540	1,516
16 Total cash outflows	n.a.	76,669	76,723
Cash inflows			
17 Secured lending (e.g., reverse repos)	122,590	16,521	18,091
18 Inflows from fully performing exposures	11,096	7,015	6,151
19 Other cash inflows	18,893	18,893	20,126
20 Total cash inflows	152,579	42,429	44,368
		Total adjusted value ⁽⁴⁾	Total adjusted value ⁽⁴⁾
21 Total HQLA	n.a.	50,642	46,222
22 Total net cash outflows	n.a.	34,240	32,355
23 Liquidity coverage ratio (%) ⁽⁵⁾	n.a.	149 %	144 %

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 is calculated using averages of the daily figures in the quarter.

As at April 30, 2020, Level 1 liquid assets represented 83% 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 April 30, 2020 and the preceding quarter reflects exceptional measures taken by OSFI and the Bank of Canada in response to the operational issues caused by the spread of COVID-19. 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 provided in the tables on the preceding pages or those used for internal liquidity management rules. While the liquidity disclosure framework is prescribed by the EDTF, the Bank's internal liquidity metrics use assumptions that are calibrated according to its business model and experience.

Funding

The Bank continuously monitors and analyzes the possibilities for accessing less expensive and more flexible funding. The deposit strategy remains a priority for the Bank, which continues to prefer deposits to institutional funding. 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 April 30, 2020							
	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⁾	675	14	7	8	704	–	–	704
Certificates of deposit and commercial paper ⁽³⁾	2,762	2,685	2,736	283	8,466	–	–	8,466
Senior unsecured medium-term notes ⁽⁴⁾	219	2,893	–	2,449	5,561	1,874	6,665	14,100
Senior unsecured structured notes	–	–	269	–	269	–	3,552	3,821
Covered bonds and asset-backed securities								
Mortgage securitization	–	1,467	473	1,697	3,637	4,341	13,261	21,239
Covered bonds	–	–	–	1,923	1,923	2,241	5,944	10,108
Securitization of credit card receivables	–	–	–	–	–	36	–	36
Subordinated liabilities ⁽⁵⁾	–	–	–	–	–	–	779	779
	3,656	7,059	3,485	6,360	20,560	8,492	30,201	59,253
Secured funding	–	1,467	473	3,620	5,560	6,618	19,205	31,383
Unsecured funding	3,656	5,592	3,012	2,740	15,000	1,874	10,996	27,870
	3,656	7,059	3,485	6,360	20,560	8,492	30,201	59,253
As at October 31, 2019	3,187	6,098	7,217	6,925	23,427	9,362	30,746	63,535

- (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.

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 approach 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-notch or three-notch credit rating downgrade.

(millions of Canadian dollars)	As at April 30, 2020	
	One-notch downgrade	Three-notch downgrade
Derivatives ⁽¹⁾	25	34

- (1) Contractual requirements related to agreements known as Credit Support Annexes.

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 April 30, 2020 with comparative figures as at October 31, 2019. 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 or 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 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.

The Bank also has future minimum commitments under leases as well as for other contracts, mainly commitments to purchase loans and contracts for outsourced information technology services. Most of the lease commitments are related to operating leases.

(millions of Canadian dollars)										As at April 30, 2020	
	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	
Assets											
Cash and deposits with financial institutions	10,800	268	137	65	76	9	–	–	16,445	27,800	
Securities											
At fair value through profit or loss	1,584	5,072	568	930	1,331	3,640	6,233	9,905	33,717	62,980	
At fair value through other comprehensive income	1	2	–	20	648	566	6,452	3,182	570	11,441	
At amortized cost	54	187	709	319	502	2,762	4,933	780	–	10,246	
	1,639	5,261	1,277	1,269	2,481	6,968	17,618	13,867	34,287	84,667	
Securities purchased under reverse repurchase agreements and securities borrowed	7,790	1,980	139	–	–	1,196	–	–	6,605	17,710	
Loans⁽¹⁾											
Residential mortgage	1,159	1,911	2,815	2,293	2,080	10,322	34,454	4,507	675	60,216	
Personal	347	671	893	813	690	3,120	12,394	3,354	14,597	36,879	
Credit card									1,901	1,901	
Business and government Customers' liability under acceptances	10,222	3,743	3,288	2,507	3,394	6,340	16,091	3,086	9,052	57,723	
Allowances for credit losses	5,887	998	157	–	–	–	–	–	–	7,042	
									(1,033)	(1,033)	
	17,615	7,323	7,153	5,613	6,164	19,782	62,939	10,947	25,192	162,728	
Other											
Derivative financial instruments	2,508	1,814	980	1,038	867	1,289	2,931	4,320	–	15,747	
Investments in associates and joint ventures									393	393	
Premises and equipment									1,175	1,175	
Goodwill									1,423	1,423	
Intangible assets									1,444	1,444	
Other assets ⁽¹⁾	1,126	177	145	316	208	312	38	–	1,541	3,863	
	3,634	1,991	1,125	1,354	1,075	1,601	2,969	4,320	5,976	24,045	
	41,478	16,823	9,831	8,301	9,796	29,556	83,526	29,134	88,505	316,950	

(1) Amounts collectible on demand are considered to have no specified maturity.

(millions of Canadian dollars)	As at April 30, 2020									
	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
Liabilities and equity										
Deposits⁽¹⁾⁽²⁾										
Personal	1,323	2,334	3,282	3,331	3,409	4,542	7,086	2,387	36,175	63,869
Business and government	24,384	7,476	4,782	3,169	2,988	4,769	13,663	4,328	66,232	131,791
Deposit-taking institutions	1,339	50	342	30	–	5	–	44	3,975	5,785
	27,046	9,860	8,406	6,530	6,397	9,316	20,749	6,759	106,382	201,445
Other										
Acceptances	5,887	998	157	–	–	–	–	–	–	7,042
Obligations related to securities sold short ⁽³⁾	28	45	774	150	438	629	3,376	4,772	5,209	15,421
Obligations related to securities sold under repurchase agreements and securities loaned	10,605	5,513	7,974	62	6,697	1,500	–	–	1,994	34,345
Derivative financial instruments	1,865	1,706	1,020	1,399	796	989	4,829	2,596	–	15,200
Liabilities related to transferred receivables ⁽⁴⁾	–	1,467	473	1,435	262	4,341	10,064	3,197	–	21,239
Securitization – Credit card ⁽⁵⁾	–	–	–	–	–	36	–	–	–	36
Lease liabilities ⁽⁵⁾	8	14	21	21	21	85	231	254	–	655
Other liabilities – Other items ⁽¹⁾⁽⁵⁾	1,049	105	87	152	116	35	74	219	3,137	4,974
	19,442	9,848	10,506	3,219	8,330	7,615	18,574	11,038	10,340	98,912
Subordinated debt	–	–	–	–	–	–	–	779	–	779
Equity									15,814	15,814
	46,488	19,708	18,912	9,749	14,727	16,931	39,323	18,576	132,536	316,950
Off-balance-sheet commitments										
Letters of guarantee and documentary letters of credit	169	960	794	2,134	662	563	89	–	–	5,371
Credit card receivables ⁽⁶⁾	–	–	–	–	–	–	–	–	8,114	8,114
Backstop liquidity and credit enhancement facilities ⁽⁷⁾	15	–	–	15	4,502	–	–	–	2,487	7,019
Commitments to extend credit ⁽⁸⁾	2,126	4,804	4,610	4,599	3,429	5,794	9,771	1,298	28,347	64,778
Obligations related to:										
Lease commitments ⁽⁹⁾	2	2	2	1	1	6	3	1	–	18
Other contracts ⁽¹⁰⁾	146	411	384	208	45	139	161	–	93	1,587

(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 \$4.5 billion.

(8) These amounts include \$37.7 billion that is unconditionally revocable at the Bank's discretion at any time.

(9) These amounts include leases for which the underlying asset is of low value and leases other than for real estate of less than one year.

(10) These amounts include \$0.3 billion in contractual commitments related to the head office building under construction.

(millions of Canadian dollars)

As at October 31, 2019

	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
Assets										
Cash and deposits with financial institutions	7,301	1,638	121	111	33	–	–	–	4,494	13,698
Securities										
At fair value through profit or loss	1,228	647	658	256	411	4,215	7,451	6,872	40,085	61,823
At fair value through other comprehensive income	36	14	26	5	1	3,213	4,749	1,982	622	10,648
At amortized cost	33	84	262	331	105	1,704	5,853	1,383	–	9,755
	1,297	745	946	592	517	9,132	18,053	10,237	40,707	82,226
Securities purchased under reverse repurchase agreements and securities borrowed	7,247	1,365	922	495	–	1,317	–	–	6,377	17,723
Loans⁽¹⁾										
Residential mortgage	734	1,161	1,959	3,093	2,893	10,674	32,601	3,375	681	57,171
Personal	253	430	803	972	843	3,367	11,576	3,407	15,293	36,944
Credit card									2,322	2,322
Business and government	8,469	2,771	2,995	3,203	2,222	6,016	13,445	2,771	8,707	50,599
Customers' liability under acceptances	6,138	710	45	–	–	–	–	–	–	6,893
Allowances for credit losses									(678)	(678)
	15,594	5,072	5,802	7,268	5,958	20,057	57,622	9,553	26,325	153,251
Other										
Derivative financial instruments	564	614	483	262	194	847	2,039	3,126	–	8,129
Investments in associates and joint ventures									385	385
Premises and equipment									490	490
Goodwill									1,412	1,412
Intangible assets									1,406	1,406
Other assets ⁽¹⁾	1,425	142	87	88	88	266	107	38	497	2,738
	1,989	756	570	350	282	1,113	2,146	3,164	4,190	14,560
	33,428	9,576	8,361	8,816	6,790	31,619	77,821	22,954	82,093	281,458

(1) Amounts collectible on demand are considered to have no specified maturity.

(millions of Canadian dollars)

As at October 31, 2019

	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
Liabilities and equity										
Deposits⁽¹⁾⁽²⁾										
Personal	1,716	1,983	3,045	2,696	3,042	6,105	7,276	2,606	31,596	60,065
Business and government	20,252	6,050	6,630	4,778	2,723	6,411	11,706	6,213	60,503	125,266
Deposit-taking institutions	711	69	79	29	275	–	5	46	3,021	4,235
	22,679	8,102	9,754	7,503	6,040	12,516	18,987	8,865	95,120	189,566
Other										
Acceptances	6,138	710	45	–	–	–	–	–	–	6,893
Obligations related to securities sold short ⁽³⁾	504	176	195	34	495	315	2,738	5,147	3,245	12,849
Obligations related to securities sold under repurchase agreements and securities loaned	7,493	1,281	2,881	2,743	–	–	–	–	7,502	21,900
Derivative financial instruments	793	763	556	292	214	712	1,959	1,563	–	6,852
Liabilities related to transferred receivables ⁽⁴⁾	–	1,491	995	881	375	3,640	10,623	3,307	–	21,312
Securitization – Credit card ⁽⁵⁾	–	–	874	–	–	–	37	–	–	911
Other liabilities – Other items ⁽¹⁾⁽⁵⁾	1,298	330	141	63	36	58	84	292	2,964	5,266
	16,226	4,751	5,687	4,013	1,120	4,725	15,441	10,309	13,711	75,983
Subordinated debt	–	–	–	–	–	–	–	773	–	773
Equity	–	–	–	–	–	–	–	–	15,136	15,136
	38,905	12,853	15,441	11,516	7,160	17,241	34,428	19,947	123,967	281,458
Off-balance-sheet commitments										
Letters of guarantee and documentary letters of credit	335	1,430	411	1,019	888	1,258	53	–	–	5,394
Credit card receivables ⁽⁶⁾	–	–	–	–	–	–	–	–	7,630	7,630
Backstop liquidity and credit enhancement facilities ⁽⁷⁾	–	15	3,017	15	–	–	–	–	2,608	5,655
Commitments to extend credit ⁽⁸⁾	1,916	4,552	4,103	5,064	4,019	4,258	10,326	784	27,102	62,124
Obligations related to:										
Lease commitments	8	17	26	27	26	99	249	239	–	691
Other contracts ⁽⁹⁾	158	289	523	423	380	198	257	–	–	2,228

(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 \$3.0 billion.

(8) These amounts include \$35.7 billion that is unconditionally revocable at the Bank's discretion at any time.

(9) These amounts include \$0.3 billion in contractual commitments related to the head office building under construction.

Risk Disclosures

One of the purposes of the *2019 Annual Report*, the *Report to Shareholders – Second Quarter 2020*, and the related supplementary information documents is to provide transparent, high-quality risk disclosures in accordance with the recommendations made by the Financial Stability Board's EDTF group. The following table lists the references where users can find information that responds to the EDTF's 32 recommendations.

		2019 Annual Report	Report to Shareholders ⁽¹⁾	Pages Supplementary Regulatory Capital and Pillar 3 Disclosure ⁽¹⁾
General				
1	Location of risk disclosures	12	42	
	Management's Discussion and Analysis	50 to 94, 107, 109 and 110	24 to 41	
	Consolidated Financial Statements	Notes 1, 7, 16, 23 and 29	Notes 7 and 13	
	Supplementary Financial Information			19 to 29 ⁽²⁾
	Supplementary Regulatory Capital and Pillar 3 Disclosure			5 to 48
2	Risk terminology and risk measures	58 to 94		
3	Top and emerging risks	63 to 67	4 to 10	
4	New key regulatory ratios	51 to 53, 80, 82 and 86	24, 25, 33, 36 and 78	
Risk governance and risk management				
5	Risk management organization, processes and key functions	58 to 76, 82 and 83		
6	Risk management culture	58 and 59		
7	Key risks by business segment, risk management and risk appetite	57 to 59 and 63		
8	Stress testing	50, 59, 71, 80, 81 and 83		
Capital adequacy and risk-weighted assets (RWA)				
9	Minimum Pillar 1 capital requirements	51 to 53	24 and 25	
10	Reconciliation of the accounting balance sheet to the regulatory balance sheet			7 to 13, 16 and 17
11	Movements in regulatory capital	55	26	
12	Capital planning	50 to 57		
13	RWA by business segment and by risk type	57		6
14	Capital requirements by risk and the RWA calculation method	67 to 71		6
15	Banking book credit risk			6
16	Movements in RWA by risk type	56	27	6
17	Assessment of credit risk model performance	62, 68 to 70 and 75		31
Liquidity				
18	Liquidity management and components of the liquidity buffer	82 to 87	33 to 37	
Funding				
19	Summary of encumbered and unencumbered assets	84 and 85	35	
20	Residual contractual maturities of balance sheet items and off-balance-sheet commitments	203 to 207	38 to 41	
21	Funding strategy and funding sources	87 to 89	37	
Market risk				
22	Linkage of market risk measures to balance sheet	77 and 78	30 and 31	
23	Market risk factors	75 to 81, 191 and 192	31 to 33	
24	VaR: Assumptions, limitations and validation procedures	78 and 79		
25	Stress tests, stressed VaR and backtesting	75 to 81		
Credit risk				
26	Credit risk exposures	74 and 151 to 163	29 and 63 to 74	18 to 39 and 19 to 27 ⁽²⁾
27	Policies for identifying impaired loans	72, 126 and 127		
28	Movements in impaired loans and allowances for credit losses	107, 109, 110 and 151 to 163	63 to 74	24 to 26 ⁽²⁾
29	Counterparty credit risk relating to derivatives transactions	72, 73 and 171 to 174		33 to 40 and 28 ⁽²⁾ and 29 ⁽²⁾
30	Credit risk mitigation	70 to 72 and 148		20, 24 and 38 to 48
Other risks				
31	Other risks: Governance, measurement and management	66, 67 and 90 to 94		
32	Publicly known risk events	90	4 to 10	

(1) Second quarter 2020.

(2) These pages are included in the document entitled *Supplementary Financial Information – Second Quarter 2020*.

Accounting Policies and Financial Disclosure

Accounting Policies and Critical Accounting Estimates

The Bank's consolidated financial statements are prepared in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB). The financial statements also comply 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 consolidated financial statements are to be prepared in accordance with IFRS. IFRS represent Canadian generally accepted accounting principles (GAAP). None of the OSFI accounting requirements are exceptions to IFRS. The unaudited interim condensed consolidated financial statements for the quarter and the six-month period ended April 30, 2020 were prepared in accordance with IAS 34 – *Interim Financial Reporting* and using the same accounting policies described in Note 1 to the audited annual consolidated financial statements for the year ended October 31, 2019, except for the changes described in Note 2 to the interim condensed consolidated financial statements, which have been applied since November 1, 2019 following the Bank's adoption of IFRS 16 – *Leases* as well as the early adoption of the amendments to IFRS 7 and IAS 39 arising from the interest rate benchmark reform.

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. Some accounting policies are considered critical given their importance to the presentation of the Bank's financial position and operating results and require difficult, 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 the same as those described on pages 95 to 100 of the *2019 Annual Report*.

COVID-19 Pandemic Considerations

Some of the Bank's accounting policies require subjective and complex judgments and estimates, as they relate to matters that are inherently uncertain. See Note 1 to the audited annual consolidated financial statements for the year ended October 31, 2019 for a summary of the most significant estimation processes used to prepare the consolidated financial statements in accordance with IFRS and for the measurement techniques used to determine carrying values and fair values of assets and liabilities.

On March 11, 2020, COVID-19 was declared a global pandemic by the World Health Organization. As a result of the heightened uncertainty associated with the unprecedented nature of the COVID-19 pandemic, developing reliable estimates and applying judgment has become even more challenging. ECL accounting has become particularly difficult in the current circumstances and requires significant judgment. The ECL model is forward looking and is based on a probability-weighted approach. Measurement of ECLs at each reporting period reflects reasonable and supportable information about past events, current conditions, and forecasts of future events and economic conditions. During this period of greater economic uncertainty, it is very difficult to forecast future events and the macroeconomic inputs used in ECL modelling. Determining macroeconomic scenarios and assigning probabilities to these scenarios requires significant judgment. Consideration is given both to the effects of COVID-19 and the significant government support measures. The Bank applies expert credit judgment to adjust modelled ECL results when it becomes evident that known or expected risk factors and information were not considered in the credit rating and modelling process. As a result of COVID-19 and the recent economic downturn, significant measurement uncertainty exists in determining ECLs, and measurement is subject to significant judgment. The uncertainty regarding key inputs used in measuring ECLs is outlined in Note 7 to these consolidated financial statements.

In response to the economic impact of COVID-19, the Canadian government has established, among other financial relief programs, the Canada Emergency Business Account (CEBA) program to provide interest-free loans of up to \$40,000 for small and medium-sized businesses and non-profit organizations. The Bank and several other financial institutions are authorized to implement this program in cooperation with Export Development Canada. This program is guaranteed by the Government of Canada and aims to help businesses cope with the economic challenges resulting from the COVID-19 crisis. Loans made by the Bank to its business clients under the CEBA program are not recognized on the Bank's consolidated balance sheet, since the conditions of a qualifying pass-through arrangement have been met and the Bank has determined that substantially all risks and rewards of ownership of the loans have been transferred to the Canadian government.

Future Accounting Policy Changes

The Bank closely monitors both new accounting standards and amendments to existing accounting standards issued by the IASB. The following standards have been issued but are not yet effective. The Bank is currently assessing the impact of the application of these standards on the consolidated financial statements.

Effective Date – November 1, 2020

Conceptual Framework for Financial Reporting

On March 29, 2018, the IASB published *Conceptual Framework for Financial Reporting* to replace its 2010 conceptual framework. For the IASB, the revised conceptual framework has been in effect since its publication date.

Effective Date – November 1, 2023

IFRS 17 – Insurance Contracts

In May 2017, the IASB issued IFRS 17 – *Insurance Contracts*, a new standard that replaces IFRS 4, the current insurance contract accounting standard. IFRS 17 introduces a new accounting framework that will improve the comparability and quality of financial information. In June 2019, the IASB issued an exposure draft that proposed targeted amendments to IFRS 17. At its meeting on March 17, 2020, the IASB decided to defer the IFRS 17 effective date to fiscal years beginning on or after January 1, 2023. The IASB has completed deliberations on the exposure draft and expects to issue final amendments to IFRS 17 in June 2020.

Financial Disclosure

During the second quarter of 2020, no changes were made to the policies, procedures and other processes that comprise the Bank's internal control over financial reporting that had or could reasonably have a significant impact on the internal control over financial reporting.

Quarterly Financial Information

(millions of Canadian dollars,
except per share amounts)

	2020				2019		2018		2019	2018
	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Total	Total
Total revenues	2,036	1,923	1,915	1,948	1,770	1,799	1,814	1,792	7,432	7,166
Net income	379	610	604	608	558	552	566	569	2,322	2,232
Earnings per share (\$)										
Basic	1.01	1.69	1.68	1.68	1.52	1.51	1.53	1.54	6.39	6.01
Diluted	1.01	1.67	1.67	1.66	1.51	1.50	1.52	1.52	6.34	5.94
Dividends per common share (\$)	0.71	0.71	0.68	0.68	0.65	0.65	0.62	0.62	2.66	2.44
Return on common shareholders' equity (%)	10.7	18.0	18.2	18.7	17.8	17.2	17.8	18.4	18.0	18.4
Total assets	316,950	289,191	281,458	276,312	269,106	263,355	262,471	257,637		
Net impaired loans⁽¹⁾	479	436	450	420	379	373	404	413		
Per common share (\$)										
Book value	38.74	37.58	36.89	36.12	35.49	34.85	34.40	33.91		
Share price										
High	74.79	74.22	68.02	64.16	63.82	61.80	65.63	64.29		
Low	38.73	68.25	60.38	60.71	60.31	54.97	58.93	61.26		

(1) All loans classified in Stage 3 of the expected credit loss model are impaired loans; the net impaired loans presented in this table exclude POCI loans.

Interim Condensed Consolidated Financial Statements

(unaudited)

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Consolidated Balance Sheets

(unaudited) (millions of Canadian dollars)

	As at April 30, 2020	As at October 31, 2019
Assets		
Cash and deposits with financial institutions	27,800	13,698
Securities (Notes 4, 5 and 6)		
At fair value through profit or loss	62,980	61,823
At fair value through other comprehensive income	11,441	10,648
At amortized cost	10,246	9,755
	84,667	82,226
Securities purchased under reverse repurchase agreements and securities borrowed	17,710	17,723
Loans (Note 7)		
Residential mortgage	60,216	57,171
Personal	36,879	36,944
Credit card	1,901	2,322
Business and government	57,723	50,599
	156,719	147,036
Customers' liability under acceptances	7,042	6,893
Allowances for credit losses	(1,033)	(678)
	162,728	153,251
Other		
Derivative financial instruments	15,747	8,129
Investments in associates and joint ventures	393	385
Premises and equipment (Note 2)	1,175	490
Goodwill	1,423	1,412
Intangible assets	1,444	1,406
Other assets (Note 9)	3,863	2,738
	24,045	14,560
	316,950	281,458
Liabilities and equity		
Deposits (Notes 5 and 10)	201,445	189,566
Other		
Acceptances	7,042	6,893
Obligations related to securities sold short	15,421	12,849
Obligations related to securities sold under repurchase agreements and securities loaned ⁽¹⁾ (Note 8)	34,345	21,900
Derivative financial instruments	15,200	6,852
Liabilities related to transferred receivables (Notes 5 and 8)	21,239	21,312
Other liabilities (Note 11)	5,665	6,177
	98,912	75,983
Subordinated debt	779	773
Equity		
Equity attributable to the Bank's shareholders (Notes 12 and 14)		
Preferred shares	2,450	2,450
Common shares	3,028	2,949
Contributed surplus	46	51
Retained earnings	10,058	9,312
Accumulated other comprehensive income	(137)	16
	15,445	14,778
Non-controlling interests	369	358
	15,814	15,136
	316,950	281,458

The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements.

- (1) As at April 30, 2020, *Obligations related to securities sold under repurchase agreements and securities loaned* include term repurchase transactions with the Bank of Canada, for which the underlying asset is a Bank issued security such as bearer deposit notes and covered bonds.

Consolidated Statements of Income

(unaudited) (millions of Canadian dollars)

	Quarter ended April 30		Six months ended April 30	
	2020	2019	2020	2019
Interest income				
Loans	1,530	1,583	3,178	3,187
Securities at fair value through profit or loss	356	307	636	539
Securities at fair value through other comprehensive income	55	45	110	82
Securities at amortized cost	61	52	120	105
Deposits with financial institutions	22	69	54	139
	2,024	2,056	4,098	4,052
Interest expense				
Deposits	711	831	1,601	1,671
Liabilities related to transferred receivables	105	108	211	214
Subordinated debt	5	6	11	12
Other	98	169	240	350
	919	1,114	2,063	2,247
Net interest income⁽¹⁾	1,105	942	2,035	1,805
Non-interest income				
Underwriting and advisory fees	114	82	200	143
Securities brokerage commissions	58	46	106	90
Mutual fund revenues	112	112	232	218
Trust service revenues	166	149	332	296
Credit fees	107	99	217	201
Card revenues	33	48	72	89
Deposit and payment service charges	63	63	131	131
Trading revenues (losses)	214	105	439	333
Gains (losses) on non-trading securities, net	(1)	25	29	57
Insurance revenues, net	28	28	64	62
Foreign exchange revenues, other than trading	31	22	55	46
Share in the net income of associates and joint ventures	6	7	16	15
Other	–	42	31	83
	931	828	1,924	1,764
Total revenues	2,036	1,770	3,959	3,569
Provisions for credit losses (Note 7)	504	84	593	172
	1,532	1,686	3,366	3,397
Non-interest expenses				
Compensation and employee benefits	693	607	1,353	1,223
Occupancy	77	63	143	125
Technology	176	172	345	333
Communications	13	16	29	32
Professional fees	58	57	117	119
Other	104	111	225	220
	1,121	1,026	2,212	2,052
Income before income taxes	411	660	1,154	1,345
Income taxes	32	102	165	235
Net income	379	558	989	1,110
Net income attributable to				
Preferred shareholders	29	29	58	58
Common shareholders	339	510	904	1,017
Bank shareholders	368	539	962	1,075
Non-controlling interests	11	19	27	35
	379	558	989	1,110
Earnings per share (dollars) (Note 17)				
Basic	1.01	1.52	2.70	3.03
Diluted	1.01	1.51	2.68	3.01
Dividends per common share (dollars) (Note 12)	0.71	0.65	1.42	1.30

The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements.

(1) Net interest income includes dividend income. For additional information, see Note 1 to the audited annual consolidated financial statements for the year ended October 31, 2019.

Consolidated Statements of Comprehensive Income

(unaudited) (millions of Canadian dollars)

	Quarter ended April 30		Six months ended April 30	
	2020	2019	2020	2019
Net income	379	558	989	1,110
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	179	50	192	42
Impact of hedging net foreign currency translation gains (losses)	(67)	(14)	(73)	(13)
	112	36	119	29
Net change in debt securities at fair value through other comprehensive income				
Net unrealized gains (losses) on debt securities at fair value through other comprehensive income	83	16	106	24
Net (gains) losses on debt securities at fair value through other comprehensive income reclassified to net income	(57)	(13)	(68)	(23)
Change in allowances for credit losses on debt securities at fair value through other comprehensive income reclassified to net income	2	–	2	–
	28	3	40	1
Net change in cash flow hedges				
Net gains (losses) on derivative financial instruments designated as cash flow hedges	(262)	(51)	(300)	(145)
Net (gains) losses on designated derivative financial instruments reclassified to net income	(4)	(3)	(7)	(12)
	(266)	(54)	(307)	(157)
Share in the other comprehensive income of associates and joint ventures	3	3	3	4
Items that will not be subsequently reclassified to net income				
Remeasurements of pension plans and other post-employment benefit plans	319	13	256	(39)
Net gains (losses) on equity securities designated at fair value through other comprehensive income	(35)	1	(24)	(5)
Net fair value change attributable to the credit risk on financial liabilities designated at fair value through profit or loss	142	(58)	111	(5)
	426	(44)	343	(49)
Total other comprehensive income, net of income taxes	303	(56)	198	(172)
Comprehensive income	682	502	1,187	938
Comprehensive income attributable to				
Bank shareholders	664	480	1,152	901
Non-controlling interests	18	22	35	37
	682	502	1,187	938

Income Taxes – Other Comprehensive Income

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

	Quarter ended April 30		Six months ended April 30	
	2020	2019	2020	2019
Net foreign currency translation adjustments				
Net unrealized foreign currency translation gains (losses) on investments in foreign operations	(7)	(1)	(7)	2
Impact of hedging net foreign currency translation gains (losses)	(18)	(4)	(20)	(4)
	(25)	(5)	(27)	(2)
Net change in debt securities at fair value through other comprehensive income				
Net unrealized gains (losses) on debt securities at fair value through other comprehensive income	30	6	38	9
Net (gains) losses on debt securities at fair value through other comprehensive income reclassified to net income	(21)	(4)	(25)	(8)
Change in allowances for credit losses on debt securities at fair value through other comprehensive income reclassified to net income	1	–	1	–
	10	2	14	1
Net change in cash flow hedges				
Net gains (losses) on derivative financial instruments designated as cash flow hedges	(94)	(18)	(108)	(52)
Net (gains) losses on designated derivative financial instruments reclassified to net income	(1)	(2)	(2)	(5)
	(95)	(20)	(110)	(57)
Share in the other comprehensive income of associates and joint ventures	1	1	1	1
Remeasurements of pension plans and other post-employment benefit plans	114	5	92	(14)
Net gains (losses) on equity securities designated at fair value through other comprehensive income	(14)	–	(9)	(2)
Net fair value change attributable to the credit risk on financial liabilities designated at fair value through profit or loss	52	(21)	40	(2)
	43	(38)	1	(75)

The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements.

Consolidated Statements of Changes in Equity

(unaudited) (millions of Canadian dollars)

	Six months ended April 30	
	2020	2019
Preferred shares at beginning and at end	2,450	2,450
Common shares at beginning (Note 12)	2,949	2,822
Issuances of common shares pursuant to the Stock Option Plan	84	51
Repurchases of common shares for cancellation	(5)	(17)
Impact of shares purchased or sold for trading	–	45
Common shares at end	3,028	2,901
Contributed surplus at beginning	51	57
Stock option expense (Note 14)	5	6
Stock options exercised	(10)	(7)
Other	–	(4)
Contributed surplus at end	46	52
Retained earnings at beginning	9,312	8,472
Impact of adopting IFRS 15 on November 1, 2018	–	(4)
Net income attributable to the Bank's shareholders	962	1,075
Dividends on preferred shares (Note 12)	(58)	(58)
Dividends on common shares (Note 12)	(476)	(436)
Premium paid on common shares repurchased for cancellation	(25)	(105)
Remeasurements of pension plans and other post-employment benefit plans	256	(39)
Net gains (losses) on equity securities designated at fair value through other comprehensive income	(24)	(5)
Net fair value change attributable to the credit risk on financial liabilities designated at fair value through profit or loss	111	(5)
Impact of a financial liability resulting from put options written to non-controlling interests	–	(6)
Retained earnings at end	10,058	8,889
Accumulated other comprehensive income at beginning	16	175
Net foreign currency translation adjustments	111	27
Net change in unrealized gains (losses) on debt securities at fair value through other comprehensive income	40	1
Net change in gains (losses) on cash flow hedges	(307)	(157)
Share in the other comprehensive income of associates and joint ventures	3	4
Accumulated other comprehensive income at end	(137)	50
Equity attributable to the Bank's shareholders	15,445	14,342
Non-controlling interests at beginning	358	379
Net income attributable to non-controlling interests	27	35
Other comprehensive income attributable to non-controlling interests	8	2
Distributions to non-controlling interests	(24)	(23)
Non-controlling interests at end	369	393
Equity	15,814	14,735

Accumulated Other Comprehensive Income

	As at April 30, 2020	As at April 30, 2019
Accumulated other comprehensive income		
Net foreign currency translation adjustments	119	41
Net unrealized gains (losses) on debt securities at fair value through other comprehensive income	54	14
Net gains (losses) on instruments designated as cash flow hedges	(313)	(6)
Share in the other comprehensive income of associates and joint ventures	3	1
	(137)	50

The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements.

Consolidated Statements of Cash Flows

(unaudited) (millions of Canadian dollars)

	Six months ended April 30	
	2020	2019
Cash flows from operating activities		
Net income	989	1,110
Adjustments for		
Provisions for credit losses	593	172
Amortization of premises and equipment including right-of-use assets	96	53
Amortization of intangible assets	125	114
Deferred taxes	(67)	18
Losses (gains) on sales of non-trading securities, net	(29)	(57)
Share in the net income of associates and joint ventures	(16)	(15)
Stock option expense	5	6
Change in operating assets and liabilities		
Securities at fair value through profit or loss	(1,157)	(7,657)
Securities purchased under reverse repurchase agreements and securities borrowed	13	966
Loans and acceptances, net of securitization	(10,039)	(2,658)
Deposits	11,879	8,589
Obligations related to securities sold short	2,572	(2,386)
Obligations related to securities sold under repurchase agreements and securities loaned	12,445	380
Derivative financial instruments, net	730	779
Securitization – Credit card	(874)	1
Interest and dividends receivable and interest payable	(146)	(62)
Current tax assets and liabilities	(305)	(166)
Other items	(1,551)	32
	15,263	(781)
Cash flows from financing activities		
Issuances of common shares (including the impact of shares purchased for trading)	74	89
Repurchases of common shares for cancellation	(30)	(122)
Repayments of lease liabilities	(44)	–
Dividends paid	(762)	(488)
Distributions to non-controlling interests	(24)	(23)
	(786)	(544)
Cash flows from investing activities		
Purchases of non-trading securities	(7,838)	(6,283)
Maturities of non-trading securities	880	559
Sales of non-trading securities	6,294	4,712
Net change in premises and equipment	(103)	(61)
Net change in intangible assets	(163)	(173)
	(930)	(1,246)
Impact of currency rate movements on cash and cash equivalents	555	313
Increase (decrease) in cash and cash equivalents	14,102	(2,258)
Cash and cash equivalents at beginning	13,698	12,756
Cash and cash equivalents at end⁽¹⁾	27,800	10,498
Supplementary information about cash flows from operating activities		
Interest paid	2,233	2,270
Interest and dividends received	4,122	4,014
Income taxes paid	194	189

The accompanying notes are an integral part of these unaudited interim condensed 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 \$5.5 billion as at April 30, 2020 (\$4.1 billion as at October 31, 2019) for which there are restrictions.

Notes to the Interim Condensed Consolidated Financial Statements

(unaudited) (millions of Canadian dollars)

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Note 1 – Basis of Presentation

On May 26, 2020, the Board of Directors authorized the publication of the Bank's unaudited interim condensed consolidated financial statements (the consolidated financial statements) for the quarter and six-month period ended April 30, 2020.

The Bank's consolidated financial statements are prepared in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB). The financial statements also comply 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 consolidated financial statements are to be prepared in accordance with IFRS. IFRS represent Canadian generally accepted accounting principles (GAAP). None of the OSFI accounting requirements are exceptions to IFRS.

These consolidated financial statements were prepared in accordance with IAS 34 – *Interim Financial Reporting* and using the same accounting policies as those described in Note 1 to the audited annual consolidated financial statements for the year ended October 31, 2019, except for the changes described in Note 2 to these consolidated financial statements, which have been applied since November 1, 2019 following the Bank's adoption of IFRS 16 – *Leases* as well as its early adoption of amendments to IFRS 7 and IAS 39 arising from the interest rate benchmark reform.

As permitted by the transitional provisions of IFRS 16, the Bank elected to apply IFRS 16 using the modified retrospective basis, with no restatement of comparative periods. Note 2 to these consolidated financial statements presents the impacts of IFRS 16 adoption on the Bank's Consolidated Balance Sheet as at November 1, 2019 and additional information on adoption of IFRS 16. Since interim consolidated financial statements do not include all the annual financial statement disclosures required under IFRS, they should be read in conjunction with the audited annual consolidated financial statements and accompanying notes for the year ended October 31, 2019.

COVID-19 Pandemic Considerations

Some of the Bank's accounting policies require subjective and complex judgments and estimates, as they relate to matters that are inherently uncertain. See Note 1 to the audited annual consolidated financial statements for the year ended October 31, 2019 for a summary of the most significant estimation processes used to prepare the consolidated financial statements in accordance with IFRS and for the measurement techniques used to determine carrying values and fair values of assets and liabilities.

On March 11, 2020, COVID-19 was declared a global pandemic by the World Health Organization. As a result of the heightened uncertainty associated with the unprecedented nature of the COVID-19 pandemic, developing reliable estimates and applying judgment has become even more challenging. ECL accounting has become particularly difficult in the current circumstances and requires significant judgment. The ECL model is forward looking and is based on a probability-weighted approach. Measurement of ECLs at each reporting period reflects reasonable and supportable information about past events, current conditions, and forecasts of future events and economic conditions. During this period of greater economic uncertainty, it is very difficult to forecast future events and the macroeconomic inputs used in ECL modelling. Determining macroeconomic scenarios and assigning probabilities to these scenarios requires significant judgment. Consideration is given both to the effects of COVID-19 and the significant government support measures. The Bank applies expert credit judgment to adjust modelled ECL results when it becomes evident that known or expected risk factors and information were not considered in the credit rating and modelling process. As a result of COVID-19 and the recent economic downturn, significant measurement uncertainty exists in determining ECLs, and measurement is subject to significant judgment. The uncertainty regarding key inputs used in measuring ECLs is outlined in Note 7 to these consolidated financial statements.

In response to the economic impact of COVID-19, the Canadian government has established, among other financial relief programs, the Canada Emergency Business Account (CEBA) program to provide interest-free loans of up to \$40,000 for small and medium-sized businesses and non-profit organizations. The Bank and several other financial institutions are authorized to implement this program in cooperation with Export Development Canada. This program is guaranteed by the Government of Canada and aims to help businesses cope with the economic challenges resulting from the COVID-19 crisis. Loans made by the Bank to its business clients under the CEBA program are not recognized on the Bank's consolidated balance sheet, since the conditions of a qualifying pass-through arrangement have been met and the Bank has determined that substantially all risks and rewards of ownership of the loans have been transferred to the Canadian government.

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

Note 2 – Accounting Policy Changes

The Bank adopted the following new and amended standards on November 1, 2019.

IFRS 16 – Leases

IFRS 16 introduces a single on-balance-sheet accounting model for lessees. As for lessors, IFRS 16 substantially carries forward the lessor accounting in the previous accounting standard, with the distinction between operating leases and finance leases being retained. Changes in accounting policies resulting from the adoption of IFRS 16 on November 1, 2019 are described hereafter.

At the inception date of a contract, the Bank assesses whether the contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. When the Bank is a lessee, it recognizes a right-of-use asset and a corresponding lease liability at the lease commencement date except for short-term leases (defined as leases with terms of 12 months or less) other than real estate leases and leases for which the underlying asset is of low value. For such leases, the Bank recognizes the lease payments as a non-interest expense on a straight-line basis over the lease term. As a practical expedient, the Bank elected for real estate leases not to separate non-lease components from lease components and instead account for them as a single lease component.

Right-of-use assets

Right-of-use assets are initially measured at cost, and subsequently measured at cost less accumulated depreciation and impairment losses, and adjusted for certain remeasurements of lease liabilities. The cost of a right-of-use asset comprises the amount of the initial measurement of the lease liability, any lease payments made at or before the commencement date, any initial direct costs incurred when entering into the lease, and an estimate of costs to dismantle the asset or restore the site, less any lease incentives received. Right-of-use assets are depreciated over the lesser of the lease term and the useful life of the asset.

Right-of-use assets are presented in *Premises and equipment* on the Consolidated Balance Sheet. The depreciation expense and impairment losses, if any, are recorded in *Non-interest expenses* in the Consolidated Statement of Income.

Lease liabilities

The lease liability is initially measured at the present value of future lease payments net of lease incentives not yet received. The present value of lease payments is determined using the Bank's incremental borrowing rate. The lease liability is subsequently measured at amortized cost using the effective interest method. In determining the lease term, the Bank considers all the facts and circumstances that create an economic incentive to exercise an extension option or not to exercise a termination option. The lease term determined by the Bank comprises the non-cancellable period of lease contracts, the periods covered by an option to extend the lease if the Bank is reasonably certain to exercise that option, and the periods covered by an option to terminate the lease if the Bank is reasonably certain not to exercise that option. The Bank reassesses the lease term if a significant event or change in circumstances occurs and that is within its control. The Bank applies judgment to determine the lease term when the lease includes extension and termination options.

Lease liabilities are presented in *Other liabilities* on the Consolidated Balance Sheet, and the interest expense is presented in the *Interest expense – Other* item of the Consolidated Statement of Income.

Note 2 – Accounting Policy Changes (cont.)

Impact of IFRS 16 adoption

On November 1, 2019, the Bank adopted IFRS 16. As a result, the Bank recognized right-of-use assets of \$648 million (\$668 million reduced by provisions for onerous lease contracts of \$20 million previously recorded in *Other liabilities – Other items* as at October 31, 2019) and lease liabilities of \$668 million.

On transition, for leases previously classified as operating leases, lease liabilities were measured at the present value of the remaining lease payments and discounted using the Bank's incremental borrowing rate as at November 1, 2019. The Bank's weighted average incremental borrowing rate on the total lease liability as at November 1, 2019 was 2.77%. Right-of-use assets were measured at an amount equal to the lease liability and reduced by the amount of the provisions for onerous contracts recorded as at October 31, 2019.

The Bank used the following practical expedients when applying IFRS 16 to leases previously classified as operating leases. The Bank:

- excluded initial direct costs from the measurement of the right-of-use assets at the date of initial application;
- relied on previous assessments of whether or not a lease is an onerous contract;
- did not separate lease components and non-lease components and treated them as a single lease component;
- applied the recognition exemption to leases for which the lease term ends within 12 months of the transition date and to leases for which the underlying asset is of low value; and
- elected not to apply IFRS 16 to leases of intangible assets.

The following table presents a reconciliation of the Bank's operating lease commitments as at October 31, 2019 to the lease liabilities recognized as at November 1, 2019.

Operating lease commitments as at October 31, 2019	691
Extension and termination options reasonably certain to be exercised	70
Impact of discounting using the Bank's incremental borrowing rate as at November 1, 2019	(93)
Lease liabilities recognized as at November 1, 2019	668

As at April 30, 2020, the amount of the right-of-use assets presented in *Premises and equipment* was \$629 million and the amount of lease liabilities presented in *Other liabilities* was \$655 million. For the quarter ended April 30, 2020, the Bank recognized a \$25 million depreciation expense on right-of-use assets in *Non-interest expenses – Occupancy* (\$49 million for the six-month period ended April 30, 2020) and a \$4 million interest expense on lease liabilities in *Interest expense – Other* (\$9 million for the six-month period ended April 30, 2020).

Interest Rate Benchmark Reform (Amendments to IFRS 9, IAS 39 and IFRS 7)

In September 2019, in response to uncertainty arising from the phasing-out of benchmark interest rates such as interbank offered rates (IBORs), the IASB issued amendments to its new and former financial instrument standards, IFRS 9 – *Financial Instruments* and IAS 39 – *Financial Instruments: Recognition and Measurement* as well as to the related standard on disclosures, IFRS 7 – *Financial Instruments: Disclosure*. On November 1, 2019, the Bank early adopted the amendments to IFRS 7 and IAS 39. When the Bank had adopted IFRS 9 on November 1, 2017, it had made an accounting policy choice to continue applying the IAS 39 hedge accounting requirements.

The amendments to IAS 39 provide temporary relief from applying specific hedge accounting requirements to all hedging relationships directly affected by interest rate benchmark reform. A hedging relationship is affected by interest rate benchmark reform if the reform gives rise to uncertainties about (a) the interest rate benchmark (contractually or non-contractually specified) designated as a hedged risk; and/or (b) the timing or the amount of interest rate benchmark-based cash flows of the hedged item or of the hedging instrument. The amendments modify specific hedge accounting requirements so that entities would apply those hedge accounting requirements assuming that the interest rate benchmark is not altered as a result of the interest rate benchmark reform, thereby allowing hedge accounting to continue during the period of uncertainty prior to the transition to alternative benchmark rates. Mandatory application of the amendments ends at the earlier of the following: when the uncertainty arising from interest rate benchmark reform is no longer present and when the hedging relationship is discontinued.

For the Bank, the effective date of these amendments is November 1, 2020. However, early adoption is permitted. For additional information, see Note 17 to the audited annual consolidated financial statements for the year ended October 31, 2019.

Note 3 – Future Accounting Policy Changes

The Bank closely monitors both new accounting standards and amendments to existing accounting standards issued by the IASB. The following standards have been issued but are not yet effective. The Bank is currently assessing the impact of the application of these standards on the consolidated financial statements.

Effective Date – November 1, 2020

Conceptual Framework for Financial Reporting

On March 29, 2018, the IASB published *Conceptual Framework for Financial Reporting* to replace its 2010 conceptual framework. For the IASB, the revised conceptual framework has been in effect since its publication date.

Effective Date – November 1, 2023

IFRS 17 – Insurance Contracts

In May 2017, the IASB issued IFRS 17 – *Insurance Contracts*, a new standard that replaces IFRS 4, the current insurance contract accounting standard. IFRS 17 introduces a new accounting framework that will improve the comparability and quality of financial information. In June 2019, the IASB issued an exposure draft that proposed targeted amendments to IFRS 17. At its meeting on March 17, 2020, the IASB decided to defer the IFRS 17 effective date to fiscal years beginning on or after January 1, 2023. The IASB has completed deliberations on the exposure draft and expects to issue final amendments to IFRS 17 in June 2020.

Note 4 – 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 April 30, 2020	
	Carrying value and fair value				Carrying value	Fair value	Total carrying value	Total fair value
	Financial instruments classified as at fair value through profit or loss	Financial instruments designated at fair value through profit or loss	Debt securities classified as at fair value through other comprehensive income	Equity securities designated at fair value through other comprehensive income	Financial instruments at amortized cost, net	Financial instruments at amortized cost, net		
Financial assets								
Cash and deposits with financial institutions	–	–	–	–	27,800	27,800	27,800	27,800
Securities	59,741	3,239	10,871	570	10,246	10,431	84,667	84,852
Securities purchased under reverse repurchase agreements and securities borrowed	–	–	–	–	17,710	17,710	17,710	17,710
Loans and acceptances, net of allowances	7,497	–	–	–	155,231	157,138	162,728	164,635
Other								
Derivative financial instruments	15,747	–	–	–	–	–	15,747	15,747
Other assets	–	–	–	–	1,757	1,757	1,757	1,757
Financial liabilities								
Deposits	–	10,963			190,482 ⁽¹⁾	191,126	201,445	202,089
Other								
Acceptances	–	–			7,042	7,042	7,042	7,042
Obligations related to securities sold short	15,421	–			–	–	15,421	15,421
Obligations related to securities sold under repurchase agreements and securities loaned	–	–			34,345	34,345	34,345	34,345
Derivative financial instruments	15,200	–			–	–	15,200	15,200
Liabilities related to transferred receivables	–	8,078			13,161	13,479	21,239	21,557
Other liabilities	–	–			2,227	2,228	2,227	2,228
Subordinated debt	–	–			779	769	779	769

(1) Includes embedded derivative financial instruments.

As at October 31, 2019

	Carrying value and fair value				Carrying value	Fair value	Total carrying value	Total fair value
	Financial instruments classified as at fair value through profit or loss	Financial instruments designated at fair value through profit or loss	Debt securities classified as at fair value through other comprehensive income	Equity securities designated at fair value through other comprehensive income	Financial instruments at amortized cost, net	Financial instruments at amortized cost, net		
Financial assets								
Cash and deposits with financial institutions	-	-	-	-	13,698	13,698	13,698	13,698
Securities	58,556	3,267	10,026	622	9,755	9,824	82,226	82,295
Securities purchased under reverse repurchase agreements and securities borrowed	-	87	-	-	17,636	17,636	17,723	17,723
Loans and acceptances, net of allowances	6,798	-	-	-	146,453	147,051	153,251	153,849
Other								
Derivative financial instruments	8,129	-	-	-	-	-	8,129	8,129
Other assets	-	-	-	-	1,193	1,193	1,193	1,193
Financial liabilities								
Deposits	-	11,203			178,363 ⁽¹⁾	178,861	189,566	190,064
Other								
Acceptances	-	-			6,893	6,893	6,893	6,893
Obligations related to securities sold short	12,849	-			-	-	12,849	12,849
Obligations related to securities sold under repurchase agreements and securities loaned	-	-			21,900	21,900	21,900	21,900
Derivative financial instruments	6,852	-			-	-	6,852	6,852
Liabilities related to transferred receivables	-	8,215			13,097	13,186	21,312	21,401
Other liabilities	24	-			3,018	3,019	3,042	3,043
Subordinated debt	-	-			773	765	773	765

(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 April 30, 2020 and may change in the future. Furthermore, there may be valuation uncertainty resulting from the choice of valuation model used.

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. The Bank's valuation governance structure has remained largely unchanged from that described in Note 3 to the audited annual consolidated financial statements for the year ended October 31, 2019. The valuation techniques used to determine the fair value of financial assets and liabilities are also described in this note, and no significant changes have been made to the valuation techniques.

Note 4 – Fair Value of Financial Instruments (cont.)

Financial Instruments Recorded at Fair Value on the Consolidated Balance Sheet

Hierarchy of Fair Value Measurements

IFRS establishes a fair value measurement 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. For additional information, see Note 3 to the audited annual consolidated financial statements for the year ended October 31, 2019.

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 about the inputs used to determine fair value and the observable nature of those inputs.

During the quarter ended April 30, 2020, there were no significant transfers from Level 2 to Level 1 (\$4 million in securities classified as at fair value through profit or loss during the quarter ended April 30, 2019). Also during the quarter ended April 30, 2020, there were no significant transfers from Level 1 to Level 2 (\$8 million in securities classified as at fair value through profit or loss and \$1 million in obligations related to securities sold short during the quarter ended April 30, 2019). During the six-month periods ended April 30, 2020 and 2019, financial instruments were transferred to (or from) Level 3 due to changes in the availability of observable market inputs resulting from changing market conditions.

The following tables show financial instruments recorded at fair value on the Consolidated Balance Sheet according to the fair value hierarchy.

	As at April 30, 2020			Total financial assets/liabilities at fair value
	Level 1	Level 2	Level 3	
Financial assets				
Securities				
At fair value through profit or loss				
Securities issued or guaranteed by				
Canadian government	2,873	7,627	–	10,500
Canadian provincial and municipal governments	–	8,509	–	8,509
U.S. Treasury, other U.S. agencies and other foreign governments	6,814	47	–	6,861
Other debt securities	–	3,351	42	3,393
Equity securities	32,899	411	407	33,717
	42,586	19,945	449	62,980
At fair value through other comprehensive income				
Securities issued or guaranteed by				
Canadian government	647	4,820	–	5,467
Canadian provincial and municipal governments	–	3,426	–	3,426
U.S. Treasury, other U.S. agencies and other foreign governments	485	131	–	616
Other debt securities	–	1,362	–	1,362
Equity securities	5	198	367	570
	1,137	9,937	367	11,441
Loans				
Other				
Derivative financial instruments	375	15,344	28	15,747
	44,098	52,338	1,229	97,665
Financial liabilities				
Deposits				
	–	11,104	–	11,104
Other				
Obligations related to securities sold short	10,249	5,172	–	15,421
Derivative financial instruments	292	14,894	14	15,200
Liabilities related to transferred receivables	–	8,078	–	8,078
	10,541	39,248	14	49,803

As at October 31, 2019

	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	2,102	8,321	–	10,423
Canadian provincial and municipal governments	–	6,762	–	6,762
U.S. Treasury, other U.S. agencies and other foreign governments	1,770	90	–	1,860
Other debt securities	–	2,666	27	2,693
Equity securities	38,836	818	431	40,085
	42,708	18,657	458	61,823
At fair value through other comprehensive income				
Securities issued or guaranteed by				
Canadian government	196	4,236	–	4,432
Canadian provincial and municipal governments	–	1,674	–	1,674
U.S. Treasury, other U.S. agencies and other foreign governments	3,471	75	–	3,546
Other debt securities	–	374	–	374
Equity securities	53	207	362	622
	3,720	6,566	362	10,648
Securities purchased under reverse repurchase agreements and securities borrowed	–	87	–	87
Loans	–	6,438	360	6,798
Other				
Derivative financial instruments	179	7,924	26	8,129
	46,607	39,672	1,206	87,485
Financial liabilities				
Deposits	–	11,383	–	11,383
Other				
Obligations related to securities sold short	8,352	4,497	–	12,849
Derivative financial instruments	156	6,674	22	6,852
Liabilities related to transferred receivables	–	8,215	–	8,215
Other liabilities	–	24	–	24
	8,508	30,793	22	39,323

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 Bank maximizes the use of observable inputs to determine the fair value of financial instruments.

For a description of the valuation techniques and significant unobservable inputs used in determining the fair value of financial instruments classified in Level 3, see Note 3 to the audited annual consolidated financial statements for the year ended October 31, 2019. For the quarter and six-month period ended April 30, 2020, no significant change was made to the valuation techniques and significant unobservable inputs used in determining fair value.

Sensitivity Analysis of Financial Instruments Classified in Level 3

The Bank performs sensitivity analyses on the fair value measurements of financial instruments classified in Level 3, substituting unobservable inputs with one or more reasonably possible alternative assumptions. For additional information on how a change in an unobservable input might affect the fair value measurements of Level 3 financial instruments, see Note 3 to the audited annual consolidated financial statements for the year ended October 31, 2019. For the six-month period ended April 30, 2020, there were no significant changes in the sensitivity analyses of Level 3 financial instruments.

Note 4 – Fair Value of Financial Instruments (cont.)

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 Levels 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.

	Six months ended April 30, 2020				
	Securities at fair value through profit or loss	Securities at fair value through other comprehensive income	Loans	Derivative financial instruments ⁽¹⁾	Deposits
Fair value as at October 31, 2019	458	362	360	4	–
Total realized and unrealized gains (losses) included in <i>Net income</i> ⁽²⁾	(18)	–	(26)	14	5
Total realized and unrealized gains (losses) included in <i>Other comprehensive income</i>	–	5	–	–	–
Purchases	16	–	–	–	–
Sales	(7)	–	–	–	–
Issuances	–	–	10	–	–
Settlements and other	–	–	11	1	–
Financial instruments transferred into Level 3	–	–	30	(2)	(9)
Financial instruments transferred out of Level 3	–	–	–	(3)	4
Fair value as at April 30, 2020	449	367	385	14	–
Change in unrealized gains and losses included in <i>Net income</i> with respect to financial assets and financial liabilities held as at April 30, 2020 ⁽³⁾	(10)	–	(26)	14	5

	Six months ended April 30, 2019				
	Securities at fair value through profit or loss	Securities at fair value through other comprehensive income	Loans	Derivative financial instruments ⁽¹⁾	Deposits
Fair value as at October 31, 2018	313	233	386	(7)	(11)
Total realized and unrealized gains (losses) included in <i>Net income</i> ⁽⁴⁾	36	–	10	14	–
Total realized and unrealized gains (losses) included in <i>Other comprehensive income</i>	–	–	–	–	–
Purchases	37	–	–	–	–
Sales	(38)	–	–	–	–
Issuances	–	–	3	–	–
Settlements and other	–	–	(13)	3	–
Financial instruments transferred into Level 3	–	–	–	(10)	–
Financial instruments transferred out of Level 3	–	–	–	5	3
Fair value as at April 30, 2019	348	233	386	5	(8)
Change in unrealized gains and losses included in <i>Net income</i> with respect to financial assets and financial liabilities held as at April 30, 2019 ⁽⁵⁾	29	–	10	14	–

- (1) The derivative financial instruments include assets and liabilities presented on a net basis.
- (2) Total gains (losses) included in *Non-interest income* was a loss of \$25 million.
- (3) Total unrealized gains (losses) included in *Non-interest income* was an unrealized loss of \$17 million.
- (4) Total gains (losses) included in *Non-interest income* was a gain of \$60 million.
- (5) Total unrealized gains (losses) included in *Non-interest income* was an unrealized gain of \$53 million.

Note 5 – 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 to the audited annual consolidated financial statements for the year ended October 31, 2019. Consistent with its risk management strategy and under the fair value option, which permits the designation if it eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise from measuring financial assets and liabilities or recognizing gains and losses thereon 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 deposits that include embedded derivative financial instruments at fair value through profit or loss.

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 April 30, 2020	Unrealized gains (losses) for the quarter ended April 30, 2020	Unrealized gains (losses) for the six months ended April 30, 2020	Unrealized gains (losses) since the initial recognition of the instrument
Financial assets designated at fair value through profit or loss				
Securities	3,239	63	76	102
Financial liabilities designated at fair value through profit or loss				
Deposits ⁽¹⁾⁽²⁾	10,963	1,230	1,086	973
Liabilities related to transferred receivables	8,078	(151)	(169)	(240)
	19,041	1,079	917	733

	Carrying value as at April 30, 2019	Unrealized gains (losses) for the quarter ended April 30, 2019	Unrealized gains (losses) for the six months ended April 30, 2019	Unrealized gains (losses) since the initial recognition of the instrument
Financial assets designated at fair value through profit or loss				
Securities	3,352	28	71	5
Securities purchased under reverse repurchase agreements	413	–	–	–
	3,765	28	71	5
Financial liabilities designated at fair value through profit or loss				
Deposits ⁽¹⁾⁽²⁾	10,957	(514)	(725)	(132)
Liabilities related to transferred receivables	7,256	(44)	(147)	(58)
	18,213	(558)	(872)	(190)

(1) For the quarter ended April 30, 2020, the change in the fair value of deposits designated at fair value through profit or loss attributable to credit risk, and recorded in *Other comprehensive income*, resulted in a gain of \$194 million (\$79 million loss for the quarter ended April 30, 2019). For the six-month period ended April 30, 2020, the corresponding change in this item resulted in a gain of \$151 million (\$7 million loss for the six-month period ended April 30, 2019).

(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 6 – Securities

Credit Quality

As at April 30, 2020 and as at October 31, 2019, securities at fair value through other comprehensive income and securities at amortized cost are classified in Stage 1, with their credit quality falling mainly in the “Excellent” category according to the Bank’s internal risk-rating categories. For additional information on the reconciliation of allowances for credit losses, see Note 7 to these consolidated financial statements.

Gross Gains (Losses) on Securities at Fair Value Through Other Comprehensive Income

	As at April 30, 2020			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Carrying value ⁽¹⁾
Securities issued or guaranteed by				
Canadian government	5,339	129	(1)	5,467
Canadian provincial and municipal governments	3,279	147	–	3,426
U.S. Treasury, other U.S. agencies and other foreign governments	577	39	–	616
Other debt securities	1,316	47	(1)	1,362
Equity securities	612	3	(45)	570
	11,123	365	(47)	11,441

	As at October 31, 2019			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Carrying value ⁽¹⁾
Securities issued or guaranteed by				
Canadian government	4,411	26	(5)	4,432
Canadian provincial and municipal governments	1,614	60	–	1,674
U.S. Treasury, other U.S. agencies and other foreign governments	3,521	25	–	3,546
Other debt securities	364	11	(1)	374
Equity securities	649	2	(29)	622
	10,559	124	(35)	10,648

(1) The allowances for credit losses on securities at fair value through other comprehensive income, representing an amount of \$3 million as at April 30, 2020 (a negligible amount as at October 31, 2019), are reported in *Other comprehensive income*. For additional information, see Note 7 to these consolidated financial statements.

Equity Securities Designated at Fair Value Through Other Comprehensive Income

The Bank designated certain equity securities, the business objective of which is to generate dividend income, at fair value through other comprehensive income without subsequent reclassification of gains and losses to net income.

During the six-month period ended April 30, 2020, an amount of \$11 million in dividend income was recognized for these investments (\$10 million for the six-month period ended April 30, 2019), including an amount of \$2 million in dividend income for investments that were sold during the six-month period ended April 30, 2020 (negligible amount for investments sold during the six-month period ended April 30, 2019).

	Six months ended April 30, 2020			Six months ended April 30, 2019		
	Equity securities of private companies	Equity securities of public companies	Total	Equity securities of private companies	Equity securities of public companies	Total
Fair value at the beginning	362	260	622	233	118	351
Change in fair value	5	(38)	(33)	–	(7)	(7)
Designated at fair value through other comprehensive income	–	60	60	–	51	51
Sales ⁽¹⁾	–	(79)	(79)	–	(23)	(23)
Fair value at the end	367	203	570	233	139	372

(1) The Bank disposed of public company equity securities for economic reasons.

Securities at Amortized Cost

	As at April 30, 2020	As at October 31, 2019
Securities issued or guaranteed by		
Canadian government	5,018	5,248
Canadian provincial and municipal governments	2,485	1,788
U.S. Treasury, other U.S. agencies and other foreign governments	21	139
Other debt securities	2,724	2,581
Gross carrying value	10,248	9,756
Allowances for credit losses	2	1
Carrying value	10,246	9,755

Gains (Losses) on Disposals of Securities at Amortized Cost

During the six-month periods ended April 30, 2020 and 2019, the Bank sold certain debt securities measured at amortized cost. The carrying value of these securities upon disposal was \$101 million for the six-month period ended April 30, 2020 (\$166 million for the six-month period ended April 30, 2019), and the Bank had recognized gains of \$5 million for the six-month period ended April 30, 2020 (negligible amount for the six-month period ended April 30, 2019) in *Non-interest income – Gains (losses) on non-trading securities, net* in the Consolidated Statement of Income.

Note 7 – Loans and Allowances for Credit Losses

Determining and Measuring Expected Credit Losses (ECL)

Determining Expected Credit Losses

Expected credit losses are determined using a three-stage impairment approach that is based on the change in the credit quality of financial assets since initial recognition.

Stage 1

Financial assets that have experienced no significant increase in credit risk between initial recognition and the reporting date and for which 12-month expected credit losses are recorded at the reporting date are classified in Stage 1.

Stage 2

Financial assets that have experienced a significant increase in credit risk between initial recognition and the reporting date, and for which lifetime expected credit losses are recorded at the reporting date, are classified in Stage 2.

Stage 3

Financial assets for which there is objective evidence of impairment, for which one or more events have had a detrimental impact on the estimated future cash flows of these financial assets at the reporting date, and for which lifetime expected credit losses are recorded, are classified in Stage 3.

POCI

Financial assets that are credit-impaired when purchased or originated (POCI) are classified in the POCI category.

For additional information, see Note 7 to the audited annual consolidated financial statements for the year ended October 31, 2019 as well as Note 1 to these consolidated financial statements.

Credit Quality of Loans

The following tables present the gross carrying amounts of loans as at April 30, 2020 and October 31, 2019, according to credit quality and ECL impairment stage of each loan category at amortized cost, and according to credit quality for loans at fair value through profit or loss. For additional information on credit quality according to the Advanced Internal Rating-Based (AIRB) categories, see the Internal Default Risk Ratings table on page 69 in the Credit Risk section of the *2019 Annual Report*.

Note 7 – Loans and Allowances for Credit Losses (cont.)

						As at April 30, 2020
	Non-impaired loans ⁽¹⁾		Impaired loans		Loans at fair value through profit or loss ⁽²⁾	Total
	Stage 1	Stage 2	Stage 3	POCI		
Residential mortgage						
Excellent	21,940	9	–	–	–	21,949
Good	15,568	113	–	–	–	15,681
Satisfactory	7,681	1,222	–	–	–	8,903
Special mention	268	654	–	–	–	922
Substandard	83	332	–	–	–	415
Default	–	–	125	–	–	125
AIRB approach	45,540	2,330	125	–	–	47,995
Standardized approach	4,630	26	36	635	6,894	12,221
Gross carrying amount	50,170	2,356	161	635	6,894	60,216
Allowances for credit losses ⁽³⁾	57	22	29	(62)	–	46
Carrying amount	50,113	2,334	132	697	6,894	60,170
Personal						
Excellent	13,997	31	–	–	–	14,028
Good	9,691	1,074	–	–	–	10,765
Satisfactory	4,279	2,219	–	–	–	6,498
Special mention	285	807	–	–	–	1,092
Substandard	76	242	–	–	–	318
Default	–	–	140	–	–	140
AIRB approach	28,328	4,373	140	–	–	32,841
Standardized approach	3,471	76	21	470	–	4,038
Gross carrying amount	31,799	4,449	161	470	–	36,879
Allowances for credit losses ⁽³⁾	72	150	77	(7)	–	292
Carrying amount	31,727	4,299	84	477	–	36,587
Credit card						
Excellent	243	–	–	–	–	243
Good	228	–	–	–	–	228
Satisfactory	639	22	–	–	–	661
Special mention	357	264	–	–	–	621
Substandard	26	105	–	–	–	131
Default	–	–	–	–	–	–
AIRB approach	1,493	391	–	–	–	1,884
Standardized approach	17	–	–	–	–	17
Gross carrying amount	1,510	391	–	–	–	1,901
Allowances for credit losses ⁽³⁾	37	121	–	–	–	158
Carrying amount	1,473	270	–	–	–	1,743
Business and government⁽⁴⁾						
Excellent	6,305	–	–	–	189	6,494
Good	26,076	6	–	–	161	26,243
Satisfactory	17,874	7,077	–	–	71	25,022
Special mention	49	1,256	–	–	–	1,305
Substandard	12	238	–	–	–	250
Default	–	–	359	–	–	359
AIRB approach	50,316	8,577	359	–	421	59,673
Standardized approach	4,623	188	99	–	182	5,092
Gross carrying amount	54,939	8,765	458	–	603	64,765
Allowances for credit losses ⁽³⁾	153	189	195	–	–	537
Carrying amount	54,786	8,576	263	–	603	64,228
Total loans						
Gross carrying amount	138,418	15,961	780	1,105	7,497	163,761
Allowances for credit losses ⁽³⁾	319	482	301	(69)	–	1,033
Carrying amount	138,099	15,479	479	1,174	7,497	162,728

(1) In response to the COVID-19 pandemic, the Bank has approved certain payment deferrals for all types of loans. The gross carrying value of loans for which deferrals have been approved totalled \$8.6 billion for residential mortgages, \$756 million for personal loans, \$66 million for credit card receivables, and \$4.5 billion for business and government loans. These loans are presented in the stage in which they were positioned immediately prior to application of the payment deferral.

(2) Not subject to expected credit losses.

(3) The allowances for credit losses do not include the amounts related to undrawn commitments reported in the *Other liabilities* item of the Consolidated Balance Sheet.

(4) Includes customers' liability under acceptances.

As at October 31, 2019

	Non-impaired loans		Impaired loans		Loans at fair value through profit or loss ⁽¹⁾	Total
	Stage 1	Stage 2	Stage 3	POCI		
Residential mortgage						
Excellent	21,840	–	–	–	–	21,840
Good	14,375	11	–	–	–	14,386
Satisfactory	8,178	674	–	–	–	8,852
Special mention	413	497	–	–	–	910
Substandard	101	248	–	–	–	349
Default	–	–	117	–	–	117
AIRB approach	44,907	1,430	117	–	–	46,454
Standardized approach	3,686	19	27	553	6,432	10,717
Gross carrying amount	48,593	1,449	144	553	6,432	57,171
Allowances for credit losses ⁽²⁾	37	12	25	(53)	–	21
Carrying amount	48,556	1,437	119	606	6,432	57,150
Personal						
Excellent	14,331	–	–	–	–	14,331
Good	10,119	206	–	–	–	10,325
Satisfactory	4,973	1,477	–	–	–	6,450
Special mention	416	711	–	–	–	1,127
Substandard	109	199	–	–	–	308
Default	–	–	139	–	–	139
AIRB approach	29,948	2,593	139	–	–	32,680
Standardized approach	3,545	83	23	613	–	4,264
Gross carrying amount	33,493	2,676	162	613	–	36,944
Allowances for credit losses ⁽²⁾	64	103	69	(4)	–	232
Carrying amount	33,429	2,573	93	617	–	36,712
Credit card						
Excellent	370	–	–	–	–	370
Good	316	–	–	–	–	316
Satisfactory	786	20	–	–	–	806
Special mention	421	241	–	–	–	662
Substandard	22	112	–	–	–	134
Default	–	–	–	–	–	–
AIRB approach	1,915	373	–	–	–	2,288
Standardized approach	34	–	–	–	–	34
Gross carrying amount	1,949	373	–	–	–	2,322
Allowances for credit losses ⁽²⁾	26	102	–	–	–	128
Carrying amount	1,923	271	–	–	–	2,194
Business and government⁽³⁾						
Excellent	4,783	–	–	–	112	4,895
Good	22,951	4	–	–	53	23,008
Satisfactory	22,367	1,346	–	–	72	23,785
Special mention	87	1,131	–	–	–	1,218
Substandard	45	255	–	–	–	300
Default	–	–	306	–	–	306
AIRB approach	50,233	2,736	306	–	237	53,512
Standardized approach	3,779	–	72	–	129	3,980
Gross carrying amount	54,012	2,736	378	–	366	57,492
Allowances for credit losses ⁽²⁾	58	99	140	–	–	297
Carrying amount	53,954	2,637	238	–	366	57,195
Total loans						
Gross carrying amount	138,047	7,234	684	1,166	6,798	153,929
Allowances for credit losses ⁽²⁾	185	316	234	(57)	–	678
Carrying amount	137,862	6,918	450	1,223	6,798	153,251

(1) Not subject to expected credit losses.

(2) The allowances for credit losses do not include the amounts related to undrawn commitments reported in the *Other liabilities* item of the Consolidated Balance Sheet.

(3) Includes customers' liability under acceptances.

Note 7 – Loans and Allowances for Credit Losses (cont.)

The following table presents the credit risk exposures of off-balance-sheet commitments as at April 30, 2020 and October 31, 2019 according to credit quality and ECL impairment stage.

	As at April 30, 2020				As at October 31, 2019			
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
Off-balance-sheet commitments⁽¹⁾								
Retail								
Excellent	14,619	26	–	14,645	12,088	2	–	12,090
Good	3,874	264	–	4,138	3,585	51	–	3,636
Satisfactory	1,297	273	–	1,570	1,328	180	–	1,508
Special mention	106	91	–	197	114	82	–	196
Substandard	5	20	–	25	5	19	–	24
Default	–	–	4	4	–	–	4	4
Non-retail								
Excellent	9,881	–	–	9,881	10,050	–	–	10,050
Good	15,702	3	–	15,705	14,640	1	–	14,641
Satisfactory	3,653	3,603	–	7,256	6,165	513	–	6,678
Special mention	21	234	–	255	17	161	–	178
Substandard	1	39	–	40	167	29	–	196
Default	–	–	8	8	–	–	16	16
AIRB approach	49,159	4,553	12	53,724	48,159	1,038	20	49,217
Standardized approach	7,525	24	5	7,554	6,154	–	1	6,155
Total exposure	56,684	4,577	17	61,278	54,313	1,038	21	55,372
Allowances for credit losses	115	46	1	162	53	20	1	74
Total exposure, net of allowances	56,569	4,531	16	61,116	54,260	1,018	20	55,298

(1) Represent letters of guarantee and documentary letters of credit, undrawn commitments, and backstop liquidity and credit enhancement facilities.

Loans Past Due But Not Impaired⁽¹⁾

	As at April 30, 2020 ⁽²⁾				As at October 31, 2019			
	Residential mortgage	Personal	Credit card	Business and government ⁽³⁾	Residential mortgage	Personal	Credit card	Business and government ⁽³⁾
Past due but not impaired								
31 to 60 days	113	124	26	29	92	82	27	31
61 to 90 days	62	39	12	20	34	34	13	21
Over 90 days ⁽⁴⁾	–	–	29	–	–	–	28	–
	175	163	67	49	126	116	68	52

(1) Loans less than 31 days past due are not presented as they are not considered past due from an administrative standpoint.

(2) In response to the COVID-19 pandemic, the Bank has approved certain payment deferrals for all types of loans. These loans are presented in the loan category in which they were positioned immediately prior to the application of the payment deferral.

(3) Includes customers' liability under acceptances.

(4) All loans more than 90 days past due, except for credit card receivables, are considered impaired (Stage 3).

Impaired Loans

	As at April 30, 2020			As at October 31, 2019		
	Gross	Allowances for credit losses	Net	Gross	Allowances for credit losses	Net
Loans – Stage 3						
Residential mortgage	161	29	132	144	25	119
Personal	161	77	84	162	69	93
Credit card ⁽¹⁾	–	–	–	–	–	–
Business and government ⁽²⁾	458	195	263	378	140	238
	780	301	479	684	234	450
POCI loans	1,105	(69)	1,174	1,166	(57)	1,223
	1,885	232	1,653	1,850	177	1,673

(1) Credit card receivables are considered impaired, at the latest, when payment is 180 days past due, and they are written off at that time.

(2) Includes customers' liability under acceptances.

Allowances for Credit Losses

The following tables present a reconciliation of the allowances for credit losses by Consolidated Balance Sheet item and by type of off-balance-sheet commitment.

	Quarter ended April 30, 2020					Allowances for credit losses as at April 30, 2020
	Allowances for credit losses as at January 31, 2020	Provisions for credit losses	Write-offs ⁽¹⁾	Disposals	Recoveries and other	
Balance sheet						
Cash and deposits with financial institutions⁽²⁾⁽³⁾	2	9	–	–	–	11
Securities⁽³⁾						
At fair value through other comprehensive income ⁽⁴⁾	–	3	–	–	–	3
At amortized cost ⁽²⁾	1	1	–	–	–	2
Securities purchased under reverse repurchase agreements and securities borrowed⁽²⁾⁽³⁾	–	–	–	–	–	–
Loans⁽⁵⁾						
Residential mortgage	26	20	(1)	–	1	46
Personal	229	88	(33)	–	8	292
Credit card	130	51	(27)	–	4	158
Business and government	275	202	(13)	–	(1)	463
Customers' liability under acceptances	33	41	–	–	–	74
	693	402	(74)	–	12	1,033
Other assets⁽²⁾⁽³⁾	–	–	–	–	–	–
Off-balance-sheet commitments⁽⁶⁾						
Letters of guarantee and documentary letters of credit	6	12	–	–	–	18
Undrawn commitments	65	76	–	–	–	141
Backstop liquidity and credit enhancement facilities	2	1	–	–	–	3
	73	89	–	–	–	162
	769	504	(74)	–	12	1,211

	Quarter ended April 30, 2019					Allowances for credit losses as at April 30, 2019
	Allowances for credit losses as at January 31, 2019	Provisions for credit losses	Write-offs ⁽¹⁾	Disposals	Recoveries and other	
Balance sheet						
Cash and deposits with financial institutions⁽²⁾⁽³⁾	1	–	–	–	–	1
Securities⁽³⁾						
At fair value through other comprehensive income ⁽⁴⁾	–	–	–	–	–	–
At amortized cost ⁽²⁾	1	–	–	–	–	1
Securities purchased under reverse repurchase agreements and securities borrowed⁽²⁾⁽³⁾	–	–	–	–	–	–
Loans⁽⁵⁾						
Residential mortgage	7	3	(2)	–	–	8
Personal	251	28	(48)	–	7	238
Credit card	127	25	(25)	–	3	130
Business and government	246	26	(5)	–	5	272
Customers' liability under acceptances	33	2	–	–	–	35
	664	84	(80)	–	15	683
Other assets⁽²⁾⁽³⁾	–	–	–	–	–	–
Off-balance-sheet commitments⁽⁶⁾						
Letters of guarantee and documentary letters of credit	4	(1)	–	–	–	3
Undrawn commitments	56	1	–	–	–	57
Backstop liquidity and credit enhancement facilities	2	–	–	–	–	2
	62	–	–	–	–	62
	728	84	(80)	–	15	747

(1) The contractual amount outstanding on financial assets that were written off during the quarter ended April 30, 2020 and that are still subject to enforcement activity was \$45 million (\$43 million for the quarter ended April 30, 2019).

(2) These financial assets are presented net of the allowances for credit losses on the Consolidated Balance Sheet.

(3) As at April 30, 2020 and 2019, these financial assets were mainly classified in Stage 1 and their credit quality fell within the *Excellent* category.

(4) The allowances for credit losses are reported in the *Accumulated other comprehensive income* item of the Consolidated Balance Sheet.

(5) The allowances for credit losses are reported in the *Allowances for credit losses* item of the Consolidated Balance Sheet.

(6) The allowances for credit losses are reported in the *Other liabilities* item of the Consolidated Balance Sheet.

Note 7 – Loans and Allowances for Credit Losses (cont.)

	Six months ended April 30, 2020					Allowances for credit losses as at April 30, 2020
	Allowances for credit losses as at October 31, 2019	Provisions for credit losses	Write-offs ⁽¹⁾	Disposals	Recoveries and other	
Balance sheet						
Cash and deposits with financial institutions ⁽²⁾⁽³⁾	2	9	–	–	–	11
Securities ⁽³⁾						
At fair value through other comprehensive income ⁽⁴⁾	–	3	–	–	–	3
At amortized cost ⁽²⁾	1	1	–	–	–	2
Securities purchased under reverse repurchase agreements and securities borrowed ⁽²⁾⁽³⁾	–	–	–	–	–	–
Loans ⁽⁵⁾						
Residential mortgage	21	27	(3)	–	1	46
Personal	232	114	(68)	–	14	292
Credit card	128	77	(54)	–	7	158
Business and government	268	229	(34)	–	–	463
Customers' liability under acceptances	29	45	–	–	–	74
	678	492	(159)	–	22	1,033
Other assets ⁽²⁾⁽³⁾	–	–	–	–	–	–
Off-balance-sheet commitments ⁽⁶⁾						
Letters of guarantee and documentary letters of credit	6	12	–	–	–	18
Undrawn commitments	66	75	–	–	–	141
Backstop liquidity and credit enhancement facilities	2	1	–	–	–	3
	74	88	–	–	–	162
	755	593	(159)	–	22	1,211

	Six months ended April 30, 2019					Allowances for credit losses as at April 30, 2019
	Allowances for credit losses as at October 31, 2018	Provisions for credit losses	Write-offs ⁽¹⁾	Disposals	Recoveries and other	
Balance sheet						
Cash and deposits with financial institutions ⁽²⁾⁽³⁾	1	–	–	–	–	1
Securities ⁽³⁾						
At fair value through other comprehensive income ⁽⁴⁾	–	–	–	–	–	–
At amortized cost ⁽²⁾	1	–	–	–	–	1
Securities purchased under reverse repurchase agreements and securities borrowed ⁽²⁾⁽³⁾	–	–	–	–	–	–
Loans ⁽⁵⁾						
Residential mortgage	1	10	(3)	–	–	8
Personal	259	69	(105)	–	15	238
Credit card	129	45	(50)	–	6	130
Business and government	249	25	(7)	–	5	272
Customers' liability under acceptances	20	15	–	–	–	35
	658	164	(165)	–	26	683
Other assets ⁽²⁾⁽³⁾	–	–	–	–	–	–
Off-balance-sheet commitments ⁽⁶⁾						
Letters of guarantee and documentary letters of credit	3	–	–	–	–	3
Undrawn commitments	49	8	–	–	–	57
Backstop liquidity and credit enhancement facilities	2	–	–	–	–	2
	54	8	–	–	–	62
	714	172	(165)	–	26	747

(1) The contractual amount outstanding on financial assets that were written off during the six-month period ended April 30, 2020 and that are still subject to enforcement activity was \$88 million (\$84 million for the six-month period ended April 30, 2019).

(2) These financial assets are presented net of the allowances for credit losses on the Consolidated Balance Sheet.

(3) As at April 30, 2020 and 2019, these financial assets were mainly classified in Stage 1 and their credit quality fell within the *Excellent* category.

(4) The allowances for credit losses are reported in the *Accumulated other comprehensive income* item of the Consolidated Balance Sheet.

(5) The allowances for credit losses are reported in the *Allowances for credit losses* item of the Consolidated Balance Sheet.

(6) The allowances for credit losses are reported in the *Other liabilities* item of the Consolidated Balance Sheet.

The following tables present the reconciliation of allowances for credit losses for each loan category at amortized cost according to ECL impairment stage.

	Quarter ended April 30, 2020					Quarter ended April 30, 2019				
	Allowances for credit losses on non-impaired loans		Allowances for credit losses on impaired loans		Total	Allowances for credit losses on non-impaired loans		Allowances for credit losses on impaired loans		Total
	Stage 1	Stage 2	Stage 3	POCI ⁽¹⁾		Stage 1	Stage 2	Stage 3	POCI ⁽¹⁾	
Residential mortgage										
Balance at beginning	41	12	25	(52)	26	32	12	23	(60)	7
Originations or purchases	2	-	-	-	2	5	-	-	-	5
Transfers ⁽²⁾ :										
to Stage 1	3	(2)	(1)	-	-	4	(3)	(1)	-	-
to Stage 2	(1)	1	-	-	-	-	1	(1)	-	-
to Stage 3	-	(1)	1	-	-	-	(1)	1	-	-
Net remeasurement of loss allowances ⁽³⁾	11	12	2	(7)	18	(8)	2	3	1	(2)
Derecognitions ⁽⁴⁾	-	-	-	-	-	-	-	-	-	-
Changes to models	-	-	-	-	-	-	-	-	-	-
Provisions for credit losses	15	10	2	(7)	20	1	(1)	2	1	3
Write-offs	-	-	(1)	-	(1)	-	-	(2)	-	(2)
Disposals	-	-	-	-	-	-	-	-	-	-
Recoveries	-	-	-	-	-	-	-	-	-	-
Foreign exchange movements and other	1	-	3	(3)	1	1	-	-	(1)	-
Balance at end	57	22	29	(62)	46	34	11	23	(60)	8
Includes:										
Amounts drawn	57	22	29	(62)	46	34	11	23	(60)	8
Undrawn commitments ⁽⁵⁾	-	-	-	-	-	-	-	-	-	-
Personal										
Balance at beginning	60	104	73	(6)	231	69	115	72	(3)	253
Originations or purchases	10	-	-	-	10	10	-	-	-	10
Transfers ⁽²⁾ :										
to Stage 1	12	(11)	(1)	-	-	20	(18)	(2)	-	-
to Stage 2	(6)	7	(1)	-	-	(5)	6	(1)	-	-
to Stage 3	(1)	(15)	16	-	-	(2)	(25)	27	-	-
Net remeasurement of loss allowances ⁽³⁾	(1)	68	18	-	85	(26)	29	18	2	23
Derecognitions ⁽⁴⁾	(2)	(2)	(1)	-	(5)	(2)	(2)	(1)	-	(5)
Changes to models	1	-	-	-	1	-	-	-	-	-
Provisions for credit losses	13	47	31	-	91	(5)	(10)	41	2	28
Write-offs	-	-	(33)	-	(33)	-	-	(48)	-	(48)
Disposals	-	-	-	-	-	-	-	-	-	-
Recoveries	-	-	6	-	6	-	-	6	-	6
Foreign exchange movements and other	1	2	-	(1)	2	1	-	-	-	1
Balance at end	74	153	77	(7)	297	65	105	71	(1)	240
Includes:										
Amounts drawn	72	150	77	(7)	292	64	104	71	(1)	238
Undrawn commitments ⁽⁵⁾	2	3	-	-	5	1	1	-	-	2

- (1) The total amount of undiscounted initially expected credit losses on the POCI loans acquired during the quarter ended April 30, 2020 was \$46 million (\$16 million for the quarter ended April 30, 2019). The expected credit losses reflected in the purchase price were discounted.
- (2) Represent stage transfers deemed to have taken place at the beginning of the quarter in which the transfer occurred.
- (3) Includes the net remeasurement of loss allowances (after transfers) attributable mainly to changes in volumes and in the credit quality of existing loans as well as to changes in risk parameters.
- (4) Represent reversals to loss allowances arising from full loan repayments (excluding write-offs and disposals).
- (5) The allowances for credit losses on undrawn commitments are reported in the *Other liabilities* item of the Consolidated Balance Sheet.

Note 7 – Loans and Allowances for Credit Losses (cont.)

	Quarter ended April 30, 2020					Quarter ended April 30, 2019				
	Allowances for credit losses on non-impaired loans		Allowances for credit losses on impaired loans		Total	Allowances for credit losses on non-impaired loans		Allowances for credit losses on impaired loans		Total
	Stage 1	Stage 2	Stage 3	POCI ⁽¹⁾		Stage 1	Stage 2	Stage 3	POCI ⁽¹⁾	
Credit card										
Balance at beginning	46	115	–	–	161	42	113	–	–	155
Originations or purchases	2	–	–	–	2	2	–	–	–	2
Transfers ⁽²⁾ :										
to Stage 1	21	(21)	–	–	–	23	(23)	–	–	–
to Stage 2	(5)	5	–	–	–	(4)	4	–	–	–
to Stage 3	–	(11)	11	–	–	–	(10)	10	–	–
Net remeasurement of loss allowances ⁽³⁾	3	48	12	–	63	(21)	34	12	–	25
Derecognitions ⁽⁴⁾	–	(1)	–	–	(1)	(1)	(1)	–	–	(2)
Changes to models	–	–	–	–	–	–	–	–	–	–
Provisions for credit losses	21	20	23	–	64	(1)	4	22	–	25
Write-offs	–	–	(27)	–	(27)	–	–	(25)	–	(25)
Disposals	–	–	–	–	–	–	–	–	–	–
Recoveries	–	–	4	–	4	–	–	3	–	3
Foreign exchange movements and other	–	–	–	–	–	–	–	–	–	–
Balance at end	67	135	–	–	202	41	117	–	–	158
Includes:										
Amounts drawn	37	121	–	–	158	25	105	–	–	130
Undrawn commitments ⁽⁵⁾	30	14	–	–	44	16	12	–	–	28
Business and government⁽⁶⁾										
Balance at beginning	88	109	143	–	340	64	105	135	1	305
Originations or purchases	25	–	–	–	25	7	–	–	–	7
Transfers ⁽²⁾ :										
to Stage 1	2	(1)	(1)	–	–	5	(3)	(2)	–	–
to Stage 2	(15)	16	(1)	–	–	(1)	4	(3)	–	–
to Stage 3	–	(12)	12	–	–	–	(1)	1	–	–
Net remeasurement of loss allowances ⁽³⁾	125	104	54	–	283	(2)	4	24	–	26
Derecognitions ⁽⁴⁾	(3)	(2)	–	–	(5)	(2)	(1)	(1)	–	(4)
Changes to models	–	–	–	–	–	–	–	–	–	–
Provisions for credit losses	134	105	64	–	303	7	3	19	–	29
Write-offs	–	–	(13)	–	(13)	–	–	(5)	–	(5)
Disposals	–	–	–	–	–	–	–	–	–	–
Recoveries	–	–	–	–	–	–	–	5	–	5
Foreign exchange movements and other	(2)	(1)	2	–	(1)	–	–	–	–	–
Balance at end	220	213	196	–	629	71	108	154	1	334
Includes:										
Amounts drawn	153	189	195	–	537	50	102	154	1	307
Undrawn commitments ⁽⁵⁾	67	24	1	–	92	21	6	–	–	27
Total allowances for credit losses at end⁽⁷⁾	418	523	302	(69)	1,174	211	341	248	(60)	740
Includes:										
Amounts drawn	319	482	301	(69)	1,033	173	322	248	(60)	683
Undrawn commitments ⁽⁵⁾	99	41	1	–	141	38	19	–	–	57

- (1) The total amount of undiscounted initially expected credit losses on the POCI loans acquired during the quarter ended April 30, 2020 was \$46 million (\$16 million for the quarter ended April 30, 2019). The expected credit losses reflected in the purchase price were discounted.
- (2) Represent stage transfers deemed to have taken place at the beginning of the quarter in which the transfer occurred.
- (3) Includes the net remeasurement of loss allowances (after transfers) attributable mainly to changes in volumes and in the credit quality of existing loans as well as to changes in risk parameters.
- (4) Represent reversals to loss allowances arising from full loan repayments (excluding write-offs and disposals).
- (5) The allowances for credit losses on undrawn commitments are reported in the *Other liabilities* item of the Consolidated Balance Sheet.
- (6) Includes customers' liability under acceptances.
- (7) Excludes allowances for credit losses on other financial assets at amortized cost and on off-balance-sheet commitments other than undrawn commitments.

	Six months ended April 30, 2020					Six months ended April 30, 2019				
	Allowances for credit losses on non-impaired loans		Allowances for credit losses on impaired loans		Total	Allowances for credit losses on non-impaired loans		Allowances for credit losses on impaired loans		Total
	Stage 1	Stage 2	Stage 3	POCI ⁽¹⁾		Stage 1	Stage 2	Stage 3	POCI ⁽¹⁾	
Residential mortgage										
Balance at beginning	37	12	25	(53)	21	31	13	21	(64)	1
Originations or purchases	4	–	–	–	4	11	–	–	–	11
Transfers ⁽²⁾ :										
to Stage 1	7	(5)	(2)	–	–	8	(6)	(2)	–	–
to Stage 2	(2)	2	–	–	–	–	1	(1)	–	–
to Stage 3	–	(2)	2	–	–	–	(2)	2	–	–
Net remeasurement of loss allowances ⁽³⁾	9	16	5	(6)	24	(17)	5	6	5	(1)
Derecognitions ⁽⁴⁾	–	(1)	–	–	(1)	–	–	–	–	–
Changes to models	–	–	–	–	–	–	–	–	–	–
Provisions for credit losses	18	10	5	(6)	27	2	(2)	5	5	10
Write-offs	–	–	(3)	–	(3)	–	–	(3)	–	(3)
Disposals	–	–	–	–	–	–	–	–	–	–
Recoveries	–	–	–	–	–	–	–	–	–	–
Foreign exchange movements and other	2	–	2	(3)	1	1	–	–	(1)	–
Balance at end	57	22	29	(62)	46	34	11	23	(60)	8
Includes:										
Amounts drawn	57	22	29	(62)	46	34	11	23	(60)	8
Undrawn commitments ⁽⁵⁾	–	–	–	–	–	–	–	–	–	–
Personal										
Balance at beginning	65	104	69	(4)	234	72	121	71	(3)	261
Originations or purchases	21	–	–	–	21	19	–	–	–	19
Transfers ⁽²⁾ :										
to Stage 1	35	(32)	(3)	–	–	40	(36)	(4)	–	–
to Stage 2	(11)	13	(2)	–	–	(11)	13	(2)	–	–
to Stage 3	(3)	(32)	35	–	–	(4)	(52)	56	–	–
Net remeasurement of loss allowances ⁽³⁾	(31)	103	36	(2)	106	(47)	64	43	2	62
Derecognitions ⁽⁴⁾	(4)	(5)	(2)	–	(11)	(5)	(5)	(2)	–	(12)
Changes to models	1	–	–	–	1	–	–	–	–	–
Provisions for credit losses	8	47	64	(2)	117	(8)	(16)	91	2	69
Write-offs	–	–	(68)	–	(68)	–	–	(105)	–	(105)
Disposals	–	–	–	–	–	–	–	–	–	–
Recoveries	–	–	13	–	13	–	–	14	–	14
Foreign exchange movements and other	1	2	(1)	(1)	1	1	–	–	–	1
Balance at end	74	153	77	(7)	297	65	105	71	(1)	240
Includes:										
Amounts drawn	72	150	77	(7)	292	64	104	71	(1)	238
Undrawn commitments ⁽⁵⁾	2	3	–	–	5	1	1	–	–	2

(1) The total amount of undiscounted initially expected credit losses on the POCI loans acquired during the six months ended April 30, 2020 was \$46 million (\$29 million for the six months ended April 30, 2019). The expected credit losses reflected in the purchase price were discounted.

(2) Represent stage transfers deemed to have taken place at the beginning of the quarter in which the transfer occurred.

(3) Includes the net remeasurement of loss allowances (after transfers) attributable mainly to changes in volumes and in the credit quality of existing loans as well as to changes in risk parameters.

(4) Represent reversals to loss allowances arising from full loan repayments (excluding write-offs and disposals).

(5) The allowances for credit losses on undrawn commitments are reported in the *Other liabilities* item of the Consolidated Balance Sheet.

Note 7 – Loans and Allowances for Credit Losses (cont.)

	Six months ended April 30, 2020					Six months ended April 30, 2019				
	Allowances for credit losses on non-impaired loans		Allowances for credit losses on impaired loans		Total	Allowances for credit losses on non-impaired loans		Allowances for credit losses on impaired loans		Total
	Stage 1	Stage 2	Stage 3	POCI ⁽¹⁾		Stage 1	Stage 2	Stage 3	POCI ⁽¹⁾	
Credit card										
Balance at beginning	47	113	–	–	160	40	115	–	–	155
Originations or purchases	4	–	–	–	4	4	–	–	–	4
Transfers ⁽²⁾ :										
to Stage 1	46	(46)	–	–	–	43	(43)	–	–	–
to Stage 2	(9)	9	–	–	–	(8)	8	–	–	–
to Stage 3	–	(21)	21	–	–	(2)	(18)	20	–	–
Net remeasurement of loss allowances ⁽³⁾	(20)	81	26	–	87	(34)	56	24	–	46
Derecognitions ⁽⁴⁾	(1)	(1)	–	–	(2)	(2)	(1)	–	–	(3)
Changes to models	–	–	–	–	–	–	–	–	–	–
Provisions for credit losses	20	22	47	–	89	1	2	44	–	47
Write-offs	–	–	(54)	–	(54)	–	–	(50)	–	(50)
Disposals	–	–	–	–	–	–	–	–	–	–
Recoveries	–	–	7	–	7	–	–	6	–	6
Foreign exchange movements and other	–	–	–	–	–	–	–	–	–	–
Balance at end	67	135	–	–	202	41	117	–	–	158
Includes:										
Amounts drawn	37	121	–	–	158	25	105	–	–	130
Undrawn commitments ⁽⁵⁾	30	14	–	–	44	16	12	–	–	28
Business and government⁽⁶⁾										
Balance at beginning	83	105	141	–	329	65	89	135	1	290
Originations or purchases	32	–	–	–	32	16	–	–	–	16
Transfers ⁽²⁾ :										
to Stage 1	6	(3)	(3)	–	–	9	(5)	(4)	–	–
to Stage 2	(16)	19	(3)	–	–	(4)	10	(6)	–	–
to Stage 3	–	(21)	21	–	–	–	(2)	2	–	–
Net remeasurement of loss allowances ⁽³⁾	123	118	74	–	315	(10)	18	34	–	42
Derecognitions ⁽⁴⁾	(6)	(4)	(3)	–	(13)	(5)	(2)	(5)	–	(12)
Changes to models	–	–	–	–	–	–	–	–	–	–
Provisions for credit losses	139	109	86	–	334	6	19	21	–	46
Write-offs	–	–	(34)	–	(34)	–	–	(7)	–	(7)
Disposals	–	–	–	–	–	–	–	–	–	–
Recoveries	–	–	1	–	1	–	–	6	–	6
Foreign exchange movements and other	(2)	(1)	2	–	(1)	–	–	(1)	–	(1)
Balance at end	220	213	196	–	629	71	108	154	1	334
Includes:										
Amounts drawn	153	189	195	–	537	50	102	154	1	307
Undrawn commitments ⁽⁵⁾	67	24	1	–	92	21	6	–	–	27
Total allowances for credit losses at end⁽⁷⁾	418	523	302	(69)	1,174	211	341	248	(60)	740
Includes:										
Amounts drawn	319	482	301	(69)	1,033	173	322	248	(60)	683
Undrawn commitments ⁽⁵⁾	99	41	1	–	141	38	19	–	–	57

(1) The total amount of undiscounted initially expected credit losses on the POCI loans acquired during the six months ended April 30, 2020 was \$46 million (\$29 million for the six months ended April 30, 2019). The expected credit losses reflected in the purchase price were discounted.

(2) Represent stage transfers deemed to have taken place at the beginning of the quarter in which the transfer occurred.

(3) Includes the net remeasurement of loss allowances (after transfers) attributable mainly to changes in volumes and in the credit quality of existing loans as well as to changes in risk parameters.

(4) Represent reversals to loss allowances arising from full loan repayments (excluding write-offs and disposals).

(5) The allowances for credit losses on undrawn commitments are reported in the *Other liabilities* item of the Consolidated Balance Sheet.

(6) Includes customers' liability under acceptances.

(7) Excludes allowances for credit losses on other financial assets at amortized cost and on off-balance-sheet commitments other than undrawn commitments.

Main Macroeconomic Factors

The following tables show the main macroeconomic factors used to estimate the allowances for credit losses on loans. For each scenario, namely, the base scenario, upside scenario and downside scenario, the average values of the factors over the next 12 months (used for Stage 1 credit loss calculations) and over the remaining forecast period (used for Stage 2 credit loss calculations) are presented.

	As at April 30, 2020					
	Base scenario		Upside scenario		Downside scenario	
	Next 12 months	Remaining forecast period	Next 12 months	Remaining forecast period	Next 12 months	Remaining forecast period
Macroeconomic factors⁽¹⁾						
GDP growth ⁽²⁾	1.4 %	2.2 %	6.3 %	2.5 %	(1.7) %	2.0 %
Unemployment rate	8.5 %	7.0 %	7.5 %	5.9 %	9.3 %	8.0 %
Housing price index growth ⁽²⁾	(9.2) %	3.0 %	(4.4) %	3.8 %	(10.9) %	1.0 %
BBB spread ⁽³⁾	2.9 %	2.1 %	2.4 %	1.7 %	3.3 %	2.4 %
S&P/TSX growth ⁽²⁾⁽⁴⁾	(5.6) %	4.1 %	2.1 %	3.1 %	(14.2) %	4.4 %
WTI oil price ⁽⁵⁾ (US\$ per barrel)	27	53	34	64	19	33

	As at October 31, 2019					
	Base scenario		Upside scenario		Downside scenario	
	Next 12 months	Remaining forecast period	Next 12 months	Remaining forecast period	Next 12 months	Remaining forecast period
Macroeconomic factors⁽¹⁾						
GDP growth ⁽²⁾	1.5 %	1.6 %	2.0 %	2.1 %	(2.0) %	1.6 %
Unemployment rate	5.8 %	5.7 %	5.6 %	5.3 %	6.8 %	7.5 %
Housing price index growth ⁽²⁾	3.1 %	3.1 %	6.1 %	2.3 %	(10.9) %	(0.3) %
BBB spread ⁽³⁾	1.6 %	1.6 %	1.5 %	1.4 %	2.7 %	2.6 %
S&P/TSX growth ⁽²⁾⁽⁴⁾	4.9 %	2.4 %	8.5 %	2.9 %	(14.1) %	6.6 %
WTI oil price ⁽⁵⁾ (US\$ per barrel)	61	60	71	69	39	39

(1) All macroeconomic factors are based on the Canadian economy unless otherwise indicated.

(2) Growth rate is annualized.

(3) Yield on corporate BBB bonds less yield on Canadian federal government bonds with 10-year maturity.

(4) Main stock index in Canada.

(5) The West Texas Intermediate (WTI) index is commonly used as a benchmark for the price of oil.

The main macroeconomic factors used for the personal credit portfolio are unemployment rate and growth in the housing price index, based on the economy of Canada or Quebec. The main macroeconomic factors used for the business and government credit portfolio are unemployment rate, spread on corporate BBB bonds, S&P/TSX growth, and WTI oil price.

An increase in unemployment rate or spread on corporate BBB bonds will generally correlate with higher allowances for credit losses, whereas an increase in the other macroeconomic factors (GDP, S&P/TSX, housing price index, and WTI oil price) will generally correlate with lower allowances for credit losses.

During the quarter ended April 30, 2020, the main macroeconomic factors deteriorated considerably given the shutdown of non-essential services. In the year ahead, the economic variables are expected to fluctuate significantly from one quarter to the next. In some instances, the next-12-month data obscures these significant fluctuations. For example, the 1.4% anticipated GDP growth rate in the base scenario for the next 12 months includes a 32% annualized contraction in the first quarter and a 42% rebound in the second quarter. With respect to the unemployment rate, the anticipated 8.5% for the next 12 months includes an 11.8% unemployment rate in the first quarter and a 7.8% rate in the second quarter.

According to the base scenario, the Canadian economy will rebound in the second half of the year as lockdown measures are lifted, but the unemployment rate will remain high at the end of 2020, i.e., above pre-recession levels. Oil will rebound slightly at year's end and rise by the end of 2021. Given a difficult labour market and reduced immigration, housing prices and the S&P/TSX will decline.

Note 7 – Loans and Allowances for Credit Losses (cont.)

According to the upside scenario, the economy will rebound more strongly thanks to medical breakthroughs that help fight COVID-19. Fiscal and monetary stimulus measures will limit the damage in terms of destroyed capacity. The unemployment rate at the end of 2020 will be only slightly above pre-recession levels. At year's end, declines in housing prices and the S&P/TSX will be less pronounced and the price of oil will bounce back.

According to the downside scenario, the uncertainties surrounding COVID-19 will provoke a deeper recession. Global trade will remain depressed for longer, and disappointing corporate earnings will inflict a new round of stress on the financial markets. The result will be greater destruction of capacity than in the base scenario. Consequently, the unemployment rate will remain at higher levels.

Given uncertainty surrounding the key inputs used to measure credit losses, the Bank has applied expert credit judgment to adjust the modelled ECL results.

Sensitivity Analysis of Allowances for Credit Losses on Non-Impaired Loans

Scenarios

The following table shows a comparison of the Bank's allowances for credit losses on non-impaired loans (Stages 1 and 2) as at April 30, 2020 based on the probability weightings of three scenarios with allowances for credit losses resulting from simulations of each scenario weighted at 100%.

	Allowances for credit losses on non-impaired loans
Balance as at April 30, 2020	941
Simulations	
100% upside scenario	759
100% base scenario	902
100% downside scenario	1,242

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. For additional information on the nature of those transactions, see Note 8 to the audited annual consolidated financial statements for the year ended October 31, 2019.

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 April 30, 2020	As at October 31, 2019
Carrying value of financial assets transferred but not derecognized		
Securities ⁽¹⁾	59,158	47,297
Residential mortgages	19,719	20,142
	78,877	67,439
Carrying value of associated liabilities⁽²⁾	45,102	36,625
Fair value of financial assets transferred but not derecognized		
Securities ⁽¹⁾	59,158	47,297
Residential mortgages	20,182	20,308
	79,340	67,605
Fair value of associated liabilities⁽²⁾	45,421	36,714

(1) The amount related to the securities loaned is the maximum amount of Bank securities that can be lent. For obligations related to securities sold under repurchase agreements, the amount includes the Bank's own financial assets as well as those of third parties and excludes bearer deposit notes issued by the Bank and covered bonds issued by the Bank.

(2) Associated liabilities include liabilities related to transferred receivables and obligations related to securities sold under repurchase agreements before the offsetting impact of \$2,011 million as at April 30, 2020 (\$3,166 million as at October 31, 2019) excluding repurchase agreements guaranteed by bearer deposit notes issued by the Bank and covered bonds issued by the Bank. 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 \$4,442 million as at April 30, 2020 (\$9,753 million as at October 31, 2019).

The following table specifies the nature of the transactions related to financial assets transferred but not derecognized.

	As at April 30, 2020	As at October 31, 2019
Carrying value of financial assets transferred but not derecognized		
Securities backed by insured residential mortgage loans and other securities sold to Canada Housing Trust	20,425	21,035
Securities sold under repurchase agreements	25,325	16,294
Securities loaned	33,127	30,110
	78,877	67,439

Note 9 – Other Assets

	As at April 30, 2020	As at October 31, 2019
Receivables, prepaid expenses and other items	1,002	696
Interest and dividends receivable	599	623
Due from clients, dealers and brokers	1,158	570
Defined benefit asset	179	38
Deferred tax assets	502	562
Current tax assets	394	216
Reinsurance assets	29	33
	3,863	2,738

Note 10 – Deposits

	As at April 30, 2020			As at October 31, 2019
	On demand ⁽¹⁾	After notice ⁽²⁾	Fixed term ⁽³⁾	Total
Personal	5,264	30,911	27,694	63,869
Business and government	44,304	21,928	65,559	131,791
Deposit-taking institutions	2,730	1,245	1,810	5,785
	52,298	54,084	95,063	201,445
				189,566

(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.

(2) Notice deposits are deposits for which the Bank may legally require notice of withdrawal and consist mainly of deposits in savings accounts.

(3) 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, covered bonds, the balance of which was \$10.1 billion as at April 30, 2020 (\$9.5 billion as at October 31, 2019). During the six months ended April 30, 2020, the Bank issued covered bonds for an amount of US\$200 million (an amount of 1.0 billion euros of covered bonds issued under the legislative covered bond program came to maturity, and the Bank issued covered bonds in amounts of US\$270 million and 750 million euros during the six-month period ended April 30, 2019). For additional information on covered bonds, see Note 27 to the audited annual consolidated financial statements for the year ended October 31, 2019.

Also as at April 30, 2020, the *Deposits – Business and government* item also includes deposits of \$6.6 billion (\$3.5 billion as at October 31, 2019) that are subject to the bank bail-in conversion regulations issued by the Government of Canada. These regulations provide certain powers to the Canada Deposit Insurance Corporation (CDIC), notably the power to convert certain eligible Bank shares and liabilities into common shares should the Bank become non-viable.

Note 11 – Other Liabilities

	As at April 30, 2020	As at October 31, 2019
Accounts payable and accrued expenses	1,687	1,883
Subsidiaries' debts to third parties	485	1,225
Interest and dividends payable	663	1,061
Lease liabilities ⁽¹⁾	655	–
Due to clients, dealers and brokers	1,040	548
Defined benefit liability	182	374
Allowances for credit losses — off-balance-sheet commitments (Note 7)	162	74
Deferred tax liabilities	1	5
Current tax liabilities	17	144
Insurance liabilities	10	24
Other items ⁽²⁾⁽³⁾⁽⁴⁾	763	839
	5,665	6,177

(1) As at November 1, 2019, upon IFRS 16 adoption, the Bank recognized lease liabilities totalling \$668 million.

(2) As at April 30, 2020, other items included a \$2 million restructuring provision (\$6 million as at October 31, 2019).

(3) As at April 30, 2020, other items included a \$5 million litigation provision (\$19 million as at October 31, 2019).

(4) As at November 1, 2019, upon IFRS 16 adoption, provisions for onerous contracts totalling \$20 million were applied against the right-of-use assets reported in the *Premises and equipment* item.

Note 12 – Share Capital

Repurchase of Common Shares

During the six-month period ended April 30, 2020, the Bank repurchased 525,000 common shares for \$30 million, which reduced *Common share* capital by \$5 million and *Retained earnings* by \$25 million. During the six-month period ended April 30, 2019, the Bank had repurchased 2,047,200 common shares for \$122 million, which had reduced *Common share* capital by \$17 million and *Retained earnings* by \$105 million. These repurchases were carried out before March 13, 2020, which was the date on which OSFI lowered the domestic stability buffer and indicated that it was expecting all banks to cease any dividend increases or share buybacks.

Shares Outstanding

	As at April 30, 2020		As at October 31, 2019	
	Number of shares	Shares \$	Number of shares	Shares \$
First Preferred Shares				
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	16,000,000	400
Series 36	16,000,000	400	16,000,000	400
Series 38	16,000,000	400	16,000,000	400
Series 40	12,000,000	300	12,000,000	300
Series 42	12,000,000	300	12,000,000	300
	98,000,000	2,450	98,000,000	2,450
Common shares at beginning of the fiscal year	334,172,411	2,949	335,070,642	2,822
Issued pursuant to the Stock Option Plan	1,747,705	84	2,950,922	122
Repurchases of common shares for cancellation	(525,000)	(5)	(4,547,200)	(40)
Impact of shares purchased or sold for trading ⁽¹⁾	4,775	–	699,564	45
Other	–	–	(1,517)	–
Common shares at end of the period	335,399,891	3,028	334,172,411	2,949

(1) As at April 30, 2020, a total of 929 shares were sold short for trading, representing a negligible amount (3,846 shares held for trading representing a negligible amount as at October 31, 2019).

Dividends Declared

	Six months ended April 30			
	2020		2019	
	Dividends \$	Dividends per share	Dividends \$	Dividends per share
First Preferred Shares				
Series 30	7	0.5031	7	0.5125
Series 32	6	0.4837	6	0.4875
Series 34	11	0.7000	11	0.7000
Series 36	11	0.6750	11	0.6750
Series 38	9	0.5563	9	0.5563
Series 40	7	0.5750	7	0.5750
Series 42	7	0.6188	7	0.6188
	58		58	
Common shares	476	1.4200	436	1.3000
	534		494	

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 April 30, 2020, the number of common shares held in escrow was 21,510 (21,510 as at October 31, 2019). The Bank expects that the remaining shares in escrow will be settled by the end of calendar year 2020.

Note 13 – Capital Disclosure

During the second quarter of 2020, OSFI adjusted regulatory ratio requirements in response to the impact of the COVID-19 pandemic. For additional information, see the section entitled “COVID-19 Pandemic – Key Measures Introduced by the Regulatory Authorities” on pages 7 to 9 of this MD&A. The Bank and all other major Canadian banks have to maintain minimum capital ratios established by OSFI: a CET1 capital ratio of at least 9.0%, a Tier 1 capital ratio of at least 10.5%, and a Total capital ratio of at least 12.5%. All of these ratios are to include a capital conservation buffer of 2.5%, a 1.0% surcharge applicable solely to Domestic Systemically Important Banks (D-SIBs), and a 1.0% domestic stability buffer. The domestic stability buffer, which can vary from 0% to 2.5% of risk-weighted assets, consists exclusively of CET1 capital. A D-SIB that fails to meet this buffer requirement will not be subject to automatic constraints to reduce capital distributions but will have to provide a remediation plan to OSFI. On March 13, 2020, OSFI lowered the buffer to 1.0%, effective immediately. The banks also have to meet the capital floor that sets the regulatory capital level according to the Basel II standardized approach. If the capital requirement under Basel III is less than 70% of the capital requirements as calculated under Basel II, the difference is added to risk-weighted assets. OSFI requires Canadian banks to meet a Basel III leverage ratio of at least 3.0%.

During the quarter and the six-month period ended April 30, 2020, the Bank was in compliance with all of OSFI’s regulatory capital requirements.

Regulatory Capital and Ratios Under Basel III

	As at April 30, 2020 Adjusted ⁽¹⁾	As at April 30, 2020	As at October 31, 2019
Capital			
CET1	10,365	10,568	9,692
Tier 1	13,165	13,368	12,492
Total	14,370	14,370	13,366
Risk-weighted assets	92,755	92,755	83,039
Total exposure	306,386	306,386	308,902
Capital ratios			
CET1	11.2 %	11.4 %	11.7 %
Tier 1	14.2 %	14.4 %	15.0 %
Total	15.5 %	15.5 %	16.1 %
Leverage ratio	4.3 %	4.4 %	4.0 %

(1) The Basel III regulatory capital and ratios adjusted as at April 30, 2020 do not include the transitional measure applicable to expected credit loss provisioning. For additional information, see the section entitled COVID-19 Pandemic – Key Measures Introduced by the Regulatory Authorities on pages 7 to 9 of this MD&A.

Note 14 – Share-Based Payments

Stock Option Plan

During the quarters ended April 30, 2020 and 2019, the Bank did not award any stock options. During the six months ended April 30, 2020, the Bank awarded 1,789,280 stock options (2,116,892 stock options during the six months ended April 30, 2019) with an average fair value of \$5.11 per option (\$6.14 in 2019).

As at April 30, 2020, there were 12,055,992 stock options outstanding (12,103,626 stock options as at October 31, 2019).

The average fair value of the options awarded was estimated on the award date using the Black-Scholes model as well as the following assumptions.

	Six months ended April 30	
	2020	2019
Risk-free interest rate	1.94%	2.50%
Expected life of options	7 years	7 years
Expected volatility	14.97%	18.40%
Expected dividend yield	4.29%	4.37%

During the quarter ended April 30, 2020, a \$3 million compensation expense was recorded for this plan (\$3 million for the quarter ended April 30, 2019). During the six months ended April 30, 2020, a \$5 million compensation expense was recorded for this plan (\$6 million for the six months ended April 30, 2019).

Note 15 – 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 cost associated with these plans, including the remeasurements recognized in *Other comprehensive income*, is presented in the following table.

Cost for Pension Plans and Other Post-Employment Benefit Plans

	Quarter ended April 30			
	Pension plans		Other post-employment benefit plans	
	2020	2019	2020	2019
Current service cost	31	23	1	1
Interest expense (income), net	2	–	1	1
Administrative expenses	1	1		
Expense recognized in <i>Net income</i>	34	24	2	2
Remeasurements⁽¹⁾				
Actuarial (gains) losses on defined benefit obligation	(332)	211	(9)	8
Return on plan assets ⁽²⁾	(92)	(237)		
Remeasurements recognized in <i>Other comprehensive income</i>	(424)	(26)	(9)	8
	(390)	(2)	(7)	10

	Six months ended April 30			
	Pension plans		Other post-employment benefit plans	
	2020	2019	2020	2019
Current service cost	63	46	1	2
Interest expense (income), net	4	1	2	3
Administrative expenses	2	2		
Expense recognized in <i>Net income</i>	69	49	3	5
Remeasurements⁽¹⁾				
Actuarial (gains) losses on defined benefit obligation	(42)	435	(1)	17
Return on plan assets ⁽²⁾	(305)	(399)		
Remeasurements recognized in <i>Other comprehensive income</i>	(347)	36	(1)	17
	(278)	85	2	22

(1) Changes related to the discount rate and to the return on plan assets are reviewed and updated on a quarterly basis. All other assumptions are updated annually.

(2) Excludes interest income.

Note 16 – Income Taxes

In April 2020, the Bank was reassessed by the Canada Revenue Agency (CRA) for additional income tax and interest of approximately \$240 million (including estimated provincial tax and interest) in respect of certain Canadian dividends received by the Bank during 2015.

In prior fiscal years, the Bank was reassessed for additional income tax and interest of approximately \$370 million (including provincial tax and interest) in respect of certain Canadian dividends received by the Bank during the 2014, 2013 and 2012 taxation years.

The transactions to which the above-mentioned reassessments relate are similar to those prospectively addressed by income tax legislation enacted as a result of the 2015 and 2018 Canadian federal budgets.

The CRA may issue reassessments to the Bank for taxation years subsequent to 2015 in regard to activities similar to those that were the subject of the above-mentioned reassessments. The Bank remains confident that its tax position was appropriate and intends to vigorously defend its position. As a result, no amount has been recognized in the consolidated financial statements as at April 30, 2020.

Note 17 – 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.

	Quarter ended April 30		Six months ended April 30	
	2020	2019	2020	2019
Basic earnings per share				
Net income attributable to the Bank's shareholders	368	539	962	1,075
Dividends on preferred shares	29	29	58	58
Net income attributable to common shareholders	339	510	904	1,017
Weighted average basic number of common shares outstanding (<i>thousands</i>)	335,603	335,478	335,309	335,599
Basic earnings per share (<i>dollars</i>)	1.01	1.52	2.70	3.03
Diluted earnings per share				
Net income attributable to common shareholders	339	510	904	1,017
Weighted average basic number of common shares outstanding (<i>thousands</i>)	335,603	335,478	335,309	335,599
Adjustment to average number of common shares (<i>thousands</i>)				
Stock options ⁽¹⁾	1,714	3,037	2,378	2,873
Weighted average diluted number of common shares outstanding (<i>thousands</i>)	337,317	338,515	337,687	338,472
Diluted earnings per share (<i>dollars</i>)	1.01	1.51	2.68	3.01

- (1) For the quarter ended April 30, 2020, the calculation of diluted earnings per share excluded an average number of 3,387,777 options outstanding with a weighted average exercise price of \$68.17 (1,784,437 options outstanding with a weighted average exercise price of \$64.14 for the quarter ended April 30, 2019), as the exercise price of these options was greater than the average price of the Bank's common shares. For the six months ended April 30, 2020, the calculation of diluted earnings per share excluded an average number of 1,403,880 options outstanding with a weighted average exercise price of \$71.86 (1,791,880 options outstanding with a weighted average exercise price of \$64.14 for the six months ended April 30, 2019).

Note 18 – Contingent Liabilities

Maple Financial Group Inc.

The Bank has a 24.9% equity interest in Maple Financial Group Inc. (Maple), a privately owned Canadian company that operated through direct and indirect wholly owned subsidiaries in Canada, Germany, the United Kingdom and the United States.

Maple Bank GmbH (Maple 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 the investigation was focusing on selected trading activities by Maple GmbH and some of its former employees, primarily during taxation years 2006 to 2010. The German authorities have alleged that these trading activities, often referred to as “cum/ex trading,” 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. At that time, the Bank announced that if it were determined that portions of the dividends it received from Maple could be reasonably attributed to tax fraud by Maple GmbH, arrangements would be made to repay those amounts to the relevant authority.

On February 6, 2016, the German Federal Financial Supervisory Authority, BaFin, placed a moratorium on the business activities of Maple GmbH preventing it from carrying out its normal business activities. In August 2016, Maple filed for bankruptcy under applicable Canadian laws, and a trustee was appointed to administer the company. Similar proceedings were initiated for each of Maple’s other material subsidiaries in their home jurisdictions. 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 was reported in the Financial Markets segment.

While there has not yet been a determination of tax fraud on the part of Maple GmbH or its employees, in the insolvency proceedings of Maple GmbH the German finance office issued a declaration about the result of the tax audit at Maple GmbH and about the relevant tax consequences of the cum/ex trading and concluded a final tax claim of the tax authorities against the insolvency administrator. This claim was approved by the Maple GmbH creditor assembly.

The Bank has been in contact with the German prosecutors, who have confirmed that, in their view based upon the evidence they have considered since the occurrence of the insolvency, the Bank was not involved in any respect with the alleged tax fraud undertaken by Maple GmbH nor was it negligent in failing to identify that alleged fraud. Further to discussions between the Bank and the German prosecutors concerning the amounts deemed attributable to the alleged tax fraud, the Bank paid 7.7 million euros to the German tax authorities on November 19, 2019. As at October 31, 2019, an \$11 million provision was recorded to reflect this adjusting event after the Consolidated Balance Sheet date.

In December 2019, the Bank, together with the other principal Maple shareholders, reached an agreement with the bankruptcy and insolvency administrator of Maple GmbH to settle any potential claims that might be asserted against them by or on behalf of Maple GmbH. In connection with the settlement, the Bank agreed to pay 8.7 million euros for the benefit of Maple GmbH’s creditors and, during the first quarter of 2020, recorded a \$13 million charge in the *Non-interest expenses – Other* item presented in the *Other* heading of segment results. The legal process to finalize the agreement has been delayed by virtue of the COVID-19 pandemic; however, all parties involved in the process have agreed to extend the timetable for finalization of the agreement until later in 2020. Upon the finalization of the agreement, the Bank expects that all material liabilities associated with its ownership of Maple will have been resolved.

Note 19 – Segment Disclosures

The Bank carries out its activities in four 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, advisors 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 corporate banking and investment banking 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.

U.S. Specialty Finance and International (USSF&I)

The USSF&I segment encompasses the specialty finance expertise provided by the Credigy subsidiary; the activities of the ABA Bank subsidiary, which offers financial products and services to individuals and businesses in Cambodia; and the activities of targeted investments in certain emerging markets.

Other

This heading encompasses treasury activities, liquidity management, Bank funding, asset/liability management activities, certain non-recurring items, and the unallocated portion of corporate units.

	Quarter ended April 30 ⁽¹⁾										Total	
	Personal and Commercial		Wealth Management		Financial Markets		USSF&I		Other		2020	2019
	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019		
Net interest income ⁽²⁾	607	578	110	108	265	185	206	159	(83)	(88)	1,105	942
Non-interest income ⁽²⁾	241	256	364	318	333	220	(23)	19	16	15	931	828
Total revenues	848	834	474	426	598	405	183	178	(67)	(73)	2,036	1,770
Non-interest expenses	459	458	278	267	220	182	82	74	82	45	1,121	1,026
Contribution	389	376	196	159	378	223	101	104	(149)	(118)	915	744
Provisions for credit losses	301	63	4	–	162	7	32	14	5	–	504	84
Income before income taxes (recovery)	88	313	192	159	216	216	69	90	(154)	(118)	411	660
Income taxes (recovery) ⁽²⁾	23	83	51	42	57	58	(5)	18	(94)	(99)	32	102
Net income	65	230	141	117	159	158	74	72	(60)	(19)	379	558
Non-controlling interests	–	–	–	–	–	–	4	12	7	7	11	19
Net income attributable to the Bank's shareholders	65	230	141	117	159	158	70	60	(67)	(26)	368	539
Average assets	117,052	111,910	5,984	6,154	120,474	109,485	14,715	10,600	54,563	45,023	312,788	283,172

	Six months ended April 30 ⁽¹⁾										Total	
	Personal and Commercial		Wealth Management		Financial Markets		USSF&I		Other		2020	2019
	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019		
Net interest income ⁽³⁾	1,218	1,167	229	232	385	262	387	317	(184)	(173)	2,035	1,805
Non-interest income ⁽³⁾	510	518	710	628	671	553	(9)	32	42	33	1,924	1,764
Total revenues	1,728	1,685	939	860	1,056	815	378	349	(142)	(140)	3,959	3,569
Non-interest expenses ⁽⁴⁾	927	921	560	534	419	360	160	142	146	95	2,212	2,052
Contribution	801	764	379	326	637	455	218	207	(288)	(235)	1,747	1,517
Provisions for credit losses	371	121	4	–	171	10	42	41	5	–	593	172
Income before income taxes (recovery)	430	643	375	326	466	445	176	166	(293)	(235)	1,154	1,345
Income taxes (recovery) ⁽³⁾	114	171	99	86	123	119	17	34	(188)	(175)	165	235
Net income	316	472	276	240	343	326	159	132	(105)	(60)	989	1,110
Non-controlling interests	–	–	–	–	–	–	13	22	14	13	27	35
Net income attributable to the Bank's shareholders	316	472	276	240	343	326	146	110	(119)	(73)	962	1,075
Average assets	116,493	111,521	5,963	6,326	121,049	106,974	13,592	10,523	49,990	45,924	307,087	281,268

- (1) For the quarter and six-month period ended April 30, 2019, certain amounts have been reclassified.
- (2) The *Net interest income*, *Non-interest income* and *Income taxes (recovery)* items of the business segments are presented on a taxable equivalent basis. Taxable equivalent basis is a calculation method that consists of grossing up certain tax-exempt income by the amount of income tax that would have been otherwise payable. For the business segments as a whole, *Net interest income* was grossed up by \$56 million (\$45 million in 2019), *Non-interest income* was grossed up by \$20 million (\$35 million in 2019), and an equivalent amount was recognized in *Income taxes (recovery)*. The effect of these adjustments has been reversed under the *Other* heading.
- (3) For the six-month period ended April 30, 2020, *Net interest income* was grossed up by \$113 million (\$80 million in 2019), *Non-interest income* was grossed up by \$50 million (\$63 million in 2019), and an equivalent amount was recognized in *Income taxes (recovery)*. The effect of these adjustments has been reversed under the *Other* heading.
- (4) For the six months ended April 30, 2020, in the *Other* heading of segment results, the *Non-interest expenses* item includes a \$13 million charge related to Maple.

Note 20 – Event After the Consolidated Balance Sheet Date

Redemption of Trust Units Issued by NBC Asset Trust

On May 4, 2020, NBC Asset Trust (the Trust), a closed-end trust established by the Bank, announced its intention to redeem all of the outstanding 350,000 trust units – Series 2 (NBC CapS II – Series 2) on June 30, 2020 at a per-unit price of \$1,000. The redemption was approved by OSFI.

Information For Shareholders and Investors

Investor Relations

Financial analysts and investors who want to obtain financial information on the Bank may contact the Investor Relations Department.

600 De La Gauchetière Street West, 7th Floor
Montreal, Quebec H3B 4L2
Toll-free: 1-866-517-5455
Email: investorrelations@nbc.ca
Website: nbc.ca/investorrelations

Communications and Corporate Social Responsibility

600 De La Gauchetière Street West, 18th Floor
Montreal, Quebec H3B 4L2
Telephone: 514-394-8644
Email: pa@nbc.ca

Quarterly Report Publication Dates for Fiscal 2020

(subject to approval by the Board of Directors of the Bank)

First quarter	February 27
Second quarter	May 26
Third quarter	August 26
Fourth quarter	December 2

Disclosure of Second Quarter 2020 Results

Conference Call

- A conference call for analysts and institutional investors will be held on Tuesday, May 26, 2020 at 5:30 p.m. EDT.
- Access by telephone in listen-only mode: 1-800-806-5484 or 416-340-2217. The access code is 2025893#.
- A recording of the conference call can be heard until June 27, 2020 by dialing 1-800-408-3053 or 905-694-9451. The access code is 8176842#.

Webcast

- The conference call will be webcast live at nbc.ca/investorrelations.
- A recording of the webcast will also be available on National Bank's website after the call.

Financial Documents

- The *Report to Shareholders* (which includes the quarterly consolidated financial statements) is available at all times on National Bank's website at nbc.ca/investorrelations.
- The *Report to Shareholders*, the *Supplementary Financial Information*, the *Supplementary Regulatory Capital and Pillar 3 Disclosure*, and a slide presentation will be available on the Investor Relations page of National Bank's website at the close of the stock markets on the day of the conference call.

Transfer Agent and Registrar

For information about stock transfers, address changes, dividends, lost certificates, tax forms, and estate transfers, shareholders of record may contact the transfer agent, Computershare Trust Company of Canada, at the address or telephone number below.

Computershare Trust Company of Canada

Share Ownership Management
100 University Avenue, 8th Floor
Toronto, Ontario M5J 2Y1
Telephone: 1-888-838-1407
Fax: 1-888-453-0330
Email: service@computershare.com
Website: computershare.com

Shareholders whose shares are held by a market intermediary are asked to contact the market intermediary concerned.

Direct Deposit Service for Dividends

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.

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 \$1 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.

Dividends

Dividends paid are "eligible dividends" in accordance with the *Income Tax Act* (Canada).

