



Report to Shareholders

Second Quarter 2022

National Bank reports its results for the Second Quarter of 2022 and raises its quarterly dividend by 5 cents to 92 cents per share

The financial information reported in this document is based on the unaudited interim condensed consolidated financial statements for the quarter and six-month period ended April 30, 2022 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 27, 2022 – For the second quarter of 2022, National Bank is reporting net income of \$893 million compared to \$801 million in the second quarter of 2021. Second-quarter diluted earnings per share stood at \$2.55, up 13% from \$2.25 in the second quarter of 2021. This growth was driven by year-over-year increases in total revenues across all of the business segments. Income before provisions for credit losses and income taxes totalled \$1,146 million in the second quarter of 2022 compared to \$1,039 million in the second quarter of 2021, a 10% increase resulting from good performance across all of the business segments.

For the six-month period ended April 30, 2022, the Bank's net income totalled \$1,825 million compared to \$1,562 million in the same period of 2021. First-half diluted earnings per share stood at \$5.19 compared to \$4.40 in the same period of 2021. The excellent performance turned in by all of the business segments was driven by revenue growth, while lower provisions for credit losses on impaired loans contributed to increases in net income and diluted earnings per share. The Bank's first-half income before provisions for credit losses and income taxes totalled \$2,335 million, a 12% year-over-year increase driven by revenue growth across all of the business segments.

Commenting on the results for the second quarter of 2022, Laurent Ferreira, President and Chief Executive Officer of National Bank of Canada, emphasized "the contribution of each business segment to the sustained growth of the Bank." "We are maintaining our strategic objectives of delivering a high return on equity and ensuring prudent management of risk and regulatory capital," added Mr. Ferreira.

Highlights

(millions of Canadian dollars)		Quarter ended April 30			Six months ended April 30		
	2022	2021	% Change	2022	2021	% Change	
Net income	893	801	11	1,825	1,562	17	
Diluted earnings per share (<i>dollars</i>)	\$ 2.55	\$ 2.25	13	\$ 5.19	\$ 4.40	18	
Income before provisions for credit losses and income taxes	1,146	1,039	10	2,335	2,083	12	
Return on common shareholders' equity ⁽¹⁾	20.6 %	22.0 %		21.2 %	21.6 %		
Dividend payout ratio ⁽¹⁾	32.0 %	38.0 %		32.0 %	38.0 %		
				As at April 30, 2022	As at October 31, 2021		
CET1 capital ratio under Basel III ⁽²⁾				12.9 %	12.4 %		
Leverage ratio under Basel III ⁽²⁾				4.4 %	4.4 %		

(1) See the Glossary section on pages 45 to 48 for details on the composition of these measures.

(2) See the Financial Reporting Method section on pages 4 to 6 for additional information on capital management measures.

Personal and Commercial

- Net income totalled \$313 million in the second quarter of 2022 versus \$305 million in the second quarter of 2021, for an increase that was driven by growth in total revenues, tempered by higher provisions for credit losses.
- Income before provisions for credit losses and income taxes totalled \$437 million in the second quarter of 2022, up 10% from \$398 million in the second quarter of 2021.
- At \$962 million, second-quarter total revenues rose \$80 million or 9% year over year due to higher net interest income, which increased upon loan and deposit growth (tempered by a lower net interest margin) and to higher non-interest income.
- Compared to a year ago, personal lending grew 9% and commercial lending grew 18%.
- The net interest margin⁽¹⁾ stood at 2.09% in the second quarter of 2022, down from 2.14% in the second quarter of 2021.
- Second-quarter non-interest expenses stood at \$525 million, up 8% from the second quarter of 2021.
- Second-quarter provisions for credit losses were up \$28 million compared to the second quarter of 2021, as higher reversals of allowances for credit losses on non-impaired loans had been recorded in the second quarter of 2021.
- At 54.6%, the second-quarter efficiency ratio⁽¹⁾ improved from 54.9% in the second quarter of 2021.

Wealth Management

- Net income totalled \$169 million in the second quarter of 2022, a 3% increase from \$164 million in the second quarter of 2021.
- Second-quarter total revenues amounted to \$579 million compared to \$541 million in second-quarter 2021, a \$38 million or 7% increase driven mainly by growth in fee-based revenues.
- Second-quarter non-interest expenses stood at \$349 million compared to \$316 million in the second quarter of 2021, a 10% increase related to revenue growth.
- At 60.3%, the second-quarter efficiency ratio⁽¹⁾ compares to 58.4% in the second quarter of 2021.

Financial Markets

- Net income totalled \$289 million in the second quarter of 2022 versus \$248 million in the second quarter of 2021, a 17% increase that was due to higher total revenues and lower provisions for credit losses.
- Income before provisions for credit losses and income taxes on a taxable equivalent basis totalled \$377 million in the second quarter of 2022, up 5% from \$358 million in the second quarter of 2021.
- Second-quarter total revenues on a taxable equivalent basis amounted to \$632 million, a \$45 million or 8% year-over-year increase attributable to global markets revenue.
- Second-quarter non-interest expenses stood at \$255 million compared to \$229 million in second-quarter 2021, an increase that was partly attributable to compensation and employee benefits as well as to technology investment expenses.
- \$16 million in recoveries of credit losses were recorded in the second quarter of 2022, whereas \$21 million in provisions for credit losses had been recorded in the second quarter of 2021, a decrease that was due to lower provisions for credit losses on impaired loans.
- At 40.3%, the second-quarter efficiency ratio⁽¹⁾ on a taxable equivalent basis compares to 39.0% in the second quarter of 2021.

U.S. Specialty Finance and International

- Net income totalled \$152 million in the second quarter of 2022 versus \$129 million in the second quarter of 2021, an 18% increase arising from growth in total revenues, tempered by increases in non-interest expenses and in provisions for credit losses.
- Second-quarter total revenues amounted to \$285 million, a 20% year-over-year increase driven by revenue growth at both the Credigy and ABA Bank subsidiaries.
- Second-quarter non-interest expenses stood at \$88 million, a 14% year-over-year increase attributable to business growth at the ABA Bank subsidiary.
- At 30.9%, the second-quarter efficiency ratio⁽¹⁾ improved from 32.5% in the second quarter of 2021.

Other

- Net loss stood at \$30 million in the second quarter of 2022 versus a net loss of \$45 million in the second quarter of 2021, a change arising mainly from a decrease in non-interest expenses.

Capital Management

- As at April 30, 2022, the Common Equity Tier 1 (CET1) capital ratio under Basel III⁽²⁾ stood at 12.9%, up from 12.4% as at October 31, 2021.
- As at April 30, 2022, the Basel III⁽²⁾ leverage ratio was 4.4%, unchanged from October 31, 2021.

(1) See the Glossary section on pages 45 to 48 for details on the composition of these measures.

(2) See the Financial Reporting Method section on pages 4 to 6 for additional information on capital management measures.

Management's Discussion and Analysis

May 26, 2022

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, 2022 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, 2022 and with the *2021 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. Information on the Bank's website mentioned herein is not and should not be considered incorporated by reference into the Report to Shareholders, the Management's Discussion and Analysis, or the Consolidated Financial Statements.

Financial Reporting Method	4	Capital Management	20
Highlights	7	Risk Management	26
Economic Review and Outlook	8	Risk Disclosures	41
Financial Analysis	9	Accounting Policies and Financial Disclosure	42
Consolidated Results	9	Accounting Policies and Critical Accounting Estimates	42
Results by Segment	12	Financial Disclosure	43
Consolidated Balance Sheet	17	Quarterly Financial Information	44
Exposure to Certain Activities	19	Glossary	45
Related Party Transactions	19		
Securitization and Off-Balance-Sheet Arrangements	19		
Income Taxes	19		

Caution Regarding Forward-Looking Statements

Certain statements in this document are forward-looking statements. 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 2022 and beyond, the strategies or actions that will be taken to achieve them, expectations about the Bank's financial condition, the regulatory environment in which it operates, the 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 verbs or words such as "outlook", "believe", "foresee", "forecast", "anticipate", "estimate", "project", "expect", "intend" and "plan", in their future or conditional forms, notably verbs such as "will", "may", "should", "could" or "would" as well as similar terms and expressions. 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 vision, strategic objectives, and financial performance targets, and may not be appropriate for other purposes. These forward-looking statements are based on current expectations, estimates, assumptions and intentions and are subject to uncertainty and inherent risks, many of which are beyond the Bank's control.

Assumptions about the performance of the Canadian and U.S. economies in 2022, 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 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.

Statements about the economy, market changes, and the Bank's objectives, outlook and priorities for fiscal 2022 and thereafter are based on a number of assumptions and are subject to risk factors, many of which are beyond the Bank's control and the impacts of which are difficult to predict. These risk factors include, among others, the general economic environment and financial market conditions in Canada, the United States, and other countries where the Bank operates; exchange rate and interest rate fluctuations; inflation; higher funding costs and greater market volatility; changes made to fiscal, monetary, and other public policies; changes made to regulations that affect the Bank's business; geopolitical and sociopolitical uncertainty; the transition to a low-carbon economy and the Bank's ability to satisfy stakeholder expectations on environmental and social issues; significant changes in consumer behaviour; the housing situation, real estate market, and household indebtedness in Canada; the Bank's ability to achieve its long-term strategies and key short-term priorities; the timely development and launch of new products and services; the Bank's ability to recruit and retain key personnel; technological innovation and heightened competition from established companies and from competitors offering non-traditional services; changes in the performance and creditworthiness of the Bank's clients and counterparties; the Bank's exposure to significant regulatory matters or litigation; changes made to the accounting policies used by the Bank to report financial information, including the uncertainty inherent to assumptions and critical accounting estimates; changes to tax legislation in the countries where the Bank operates, i.e., primarily Canada and the United States; changes made to capital and liquidity guidelines as well as to the presentation and interpretation thereof; 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 as well as identity theft and theft of personal information; and possible impacts of major events affecting the local and global economies, including international conflicts, natural disasters, and public health crises such as the COVID-19 pandemic.

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 confirmed and that its vision, strategic objectives and financial performance targets will not be achieved. The Bank recommends that readers not place undue reliance on forward-looking statements, as a number of factors, including the impacts of the COVID-19 pandemic, could cause actual results to differ significantly from the expectations, estimates or intentions expressed in these forward-looking statements. These risk factors include credit risk, market risk, liquidity and funding risk, operational risk, regulatory compliance risk, reputation risk, strategic risk, environmental and social risk, and certain emerging risks or risks deemed significant, all of which are described in greater detail in the Risk Management section beginning on page 69 of the *2021 Annual Report*.

The foregoing list of risk factors is not exhaustive. Additional information about these risk factors is provided in the Risk Management section and in the COVID-19 Pandemic section of the *2021 Annual Report* and in the Risk Management section of this Report to Shareholders for the Second Quarter of 2022. Investors and others who rely on the Bank's forward-looking statements should carefully consider the above factors as well as the uncertainties they represent and the risk they entail. Except as required by law, the Bank does not undertake to update any forward-looking statements, whether written or oral, that may be made from time to time, by it or on its behalf. The Bank cautions investors that these forward-looking statements are not guarantees of future performance and that actual events or results may differ significantly from these statements due to a number of factors.

Financial Reporting Method

The Bank's consolidated financial statements are prepared in accordance with IFRS, as issued by the 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, which represent Canadian GAAP. None of the OSFI accounting requirements are exceptions to IFRS.

The presentation of segment disclosures is consistent with the presentation adopted by the Bank for the fiscal year beginning November 1, 2021. This presentation reflects the fact that the loan portfolio of borrowers in the "Oil and gas, and pipelines" sector and related activities, which had previously been reported in the Personal and Commercial segment, are now reported in the Financial Markets segment. The Bank made this change to better align the monitoring of its activities with its management structure.

Non-GAAP and Other 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. *Regulation 52-112 respecting Non-GAAP and Other Financial Measures Disclosure* (Regulation 52-112) prescribes disclosure requirements that apply to the following measures used by the Bank:

- non-GAAP financial measures;
- non-GAAP ratios;
- supplementary financial measures;
- capital management measures.

Non-GAAP Financial Measures

The Bank uses non-GAAP financial measures that do not have standardized meanings under GAAP and that therefore may not be comparable to similar measures used by other companies. 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. The Bank excludes certain specified items that are inherently unpredictable from its results. In addition, 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.

The non-GAAP financial measures used by the Bank are as follows: Adjusted net interest income; adjusted non-interest income; adjusted total revenues; adjusted non-interest expenses; adjusted income before provisions for credit losses and income taxes; adjusted income before income taxes; adjusted income taxes; adjusted net income; adjusted non-controlling interests; adjusted net income attributable to the Bank's shareholders and holders of other equity instruments; adjusted basic earnings per share and adjusted diluted earnings per share. Quantitative reconciliations of these measures are presented in the Reconciliation of Non-GAAP Financial Measures tables on page 6 and in the Consolidated Results table on page 9.

Non-GAAP Ratios

The Bank uses non-GAAP ratios that do not have standardized meanings under GAAP and that therefore may not be comparable to similar measures used by other companies. A non-GAAP ratio is a ratio in which at least one component is a non-GAAP financial measure. The Bank uses non-GAAP ratios to present aspects of its financial performance or financial position, including adjusted efficiency ratio, adjusted operating leverage, adjusted return on common shareholders' equity, and adjusted dividend payout ratio. For additional information about the composition of these ratios, see the Glossary section on pages 45 to 48 of this MD&A.

Supplementary Financial Measures

A supplementary financial measure is a financial measure that: (a) is not reported in the Bank's consolidated financial statements, and (b) is, or is intended to be, reported periodically to represent historical or expected financial performance, financial position, or cash flows. The composition of these supplementary financial measures is presented in table footnotes or in the Glossary section on pages 45 to 48 of this MD&A.

Capital Management Measures

The financial reporting framework used to prepare the financial statements requires disclosure that help readers assess the Bank's capital management objectives, policies, and processes, as set out in IFRS in IAS 1 – *Presentation of Financial Statements*. The Bank has its own methods for managing capital and liquidity, and IFRS does not prescribe any particular calculation method. These measures are calculated using various guidelines and advisories issued by OSFI, which are based on the standards, recommendations, and best practices of the Basel Committee on Banking Supervision (BCBS), as presented in the following table.

OSFI guideline or advisory	Measure
Capital Adequacy Requirements	Common Equity Tier 1 (CET1) capital ratio Tier 1 capital ratio Total capital ratio CET1 capital Tier 1 capital Tier 2 capital Total capital Risk-weighted assets Maximum credit risk exposure under the Basel asset classes
Leverage Requirements	Leverage ratio Total exposure
Liquidity Adequacy Requirements	Liquid asset portfolio Encumbered and unencumbered assets Liquidity coverage ratio (LCR) High-quality liquid assets (HQLA) Cash inflows/outflows and net cash outflows Net stable funding ratio (NSFR) Available stable funding items Required stable funding items
Total Loss Absorbing Capacity (TLAC)	Key indicators – TLAC requirements Available TLAC TLAC ratio TLAC leverage ratio
Global Systemically Important Banks (G-SIBs) – Public Disclosure Requirements	G-SIB indicators

Reconciliation of Non-GAAP Financial Measures

Presentation of Results – Adjusted

(millions of Canadian dollars)

Quarter ended April 30

						2022	2021
	Personal and Commercial	Wealth Management	Financial Markets	USSF&I	Other	Total	Total
Net interest income	670	127	308	277	(69)	1,313	1,156
Taxable equivalent	–	–	47	–	2	49	42
Net interest income – Adjusted	670	127	355	277	(67)	1,362	1,198
Non-interest income	292	452	274	8	100	1,126	1,082
Taxable equivalent	–	–	3	–	–	3	2
Non-interest income – Adjusted	292	452	277	8	100	1,129	1,084
Total revenues – Adjusted	962	579	632	285	33	2,491	2,282
Non-interest expenses	525	349	255	88	76	1,293	1,199
Income before provisions for credit losses and income taxes – Adjusted	437	230	377	197	(43)	1,198	1,083
Provisions for credit losses	11	–	(16)	9	(1)	3	5
Income before income taxes – Adjusted	426	230	393	188	(42)	1,195	1,078
Income taxes	113	61	54	36	(14)	250	233
Taxable equivalent	–	–	50	–	2	52	44
Income taxes – Adjusted	113	61	104	36	(12)	302	277
Net income	313	169	289	152	(30)	893	801
Non-controlling interests	–	–	–	–	(1)	(1)	–
Net income attributable to the Bank's shareholders and holders of other equity instruments	313	169	289	152	(29)	894	801

(millions of Canadian dollars)

Six months ended April 30

						2022	2021
	Personal and Commercial	Wealth Management	Financial Markets	USSF&I	Other	Total	Total
Net interest income	1,339	246	647	547	(134)	2,645	2,363
Taxable equivalent	–	–	106	–	3	109	96
Net interest income – Adjusted	1,339	246	753	547	(131)	2,754	2,459
Non-interest income	581	925	534	23	197	2,260	2,099
Taxable equivalent	–	–	7	–	–	7	5
Non-interest income – Adjusted	581	925	541	23	197	2,267	2,104
Total revenues – Adjusted	1,920	1,171	1,294	570	66	5,021	4,563
Non-interest expenses	1,057	701	515	168	129	2,570	2,379
Income before provisions for credit losses and income taxes – Adjusted	863	470	779	402	(63)	2,451	2,184
Provisions for credit losses	6	–	(32)	27	–	1	86
Income before income taxes – Adjusted	857	470	811	375	(63)	2,450	2,098
Income taxes	227	125	102	75	(20)	509	435
Taxable equivalent	–	–	113	–	3	116	101
Income taxes – Adjusted	227	125	215	75	(17)	625	536
Net income	630	345	596	300	(46)	1,825	1,562
Non-controlling interests	–	–	–	–	(1)	(1)	–
Net income attributable to the Bank's shareholders and holders of other equity instruments	630	345	596	300	(45)	1,826	1,562

Highlights

(millions of Canadian dollars, except per share amounts)			Quarter ended April 30			Six months ended April 30		
	2022	2021	% Change	2022	2021	% Change		
Operating results								
Total revenues	2,439	2,238	9	4,905	4,462	10		
Income before provisions for credit losses and income taxes	1,146	1,039	10	2,335	2,083	12		
Net income	893	801	11	1,825	1,562	17		
Net income attributable to the Bank's shareholders and holders of other equity instruments	894	801	12	1,826	1,562	17		
Return on common shareholders' equity ⁽¹⁾	20.6 %	22.0 %		21.2 %	21.6 %			
Earnings per share								
Basic	\$ 2.58	\$ 2.28	13	\$ 5.26	\$ 4.44	18		
Diluted	2.55	2.25	13	5.19	4.40	18		
Operating results – Adjusted⁽²⁾								
Total revenues – Adjusted ⁽²⁾	2,491	2,282	9	5,021	4,563	10		
Income before provisions for credit losses and income taxes – Adjusted ⁽²⁾	1,198	1,083	11	2,451	2,184	12		
Net income – Adjusted ⁽²⁾	893	801	11	1,825	1,562	17		
Return on common shareholders' equity – Adjusted ⁽³⁾	20.6 %	22.0 %		21.2 %	21.6 %			
Operating leverage – Adjusted ⁽³⁾	1.4 %	1.0 %		2.0 %	2.5 %			
Efficiency ratio – Adjusted ⁽³⁾	51.9 %	52.5 %		51.2 %	52.1 %			
Earnings per share – Adjusted⁽²⁾								
Basic	\$ 2.58	\$ 2.28	13	\$ 5.26	\$ 4.44	18		
Diluted	2.55	2.25	13	5.19	4.40	18		
Common share information								
Dividends declared	\$ 0.87	\$ 0.71		\$ 1.74	\$ 1.42			
Book value ⁽¹⁾	52.81	43.59		52.81	43.59			
Share price								
High	104.59	89.42		105.44	89.42			
Low	89.33	72.30		89.33	65.54			
Close	89.72	89.36		89.72	89.36			
Number of common shares (thousands)	336,513	337,372		336,513	337,372			
Market capitalization	30,192	30,148		30,192	30,148			

(millions of Canadian dollars)			As at April 30, 2022	As at October 31, 2021	% Change
Balance sheet and off-balance-sheet					
Total assets			369,785	355,795	4
Loans and acceptances, net of allowances			194,029	182,689	6
Deposits			246,684	240,938	2
Equity attributable to common shareholders			17,772	16,203	10
Assets under administration ⁽¹⁾			627,739	651,530	(4)
Assets under management ⁽¹⁾			114,932	117,186	(2)
Regulatory ratios under Basel III⁽⁴⁾					
Capital ratios					
Common Equity Tier 1 (CET1)			12.9 %	12.4 %	
Tier 1			15.3 %	15.0 %	
Total			16.2 %	15.9 %	
Leverage ratio					
TLAC ratio ⁽⁴⁾			4.4 %	4.4 %	
TLAC leverage ratio ⁽⁴⁾			27.8 %	26.3 %	
Liquidity coverage ratio (LCR) ⁽⁴⁾			8.0 %	7.8 %	
Net stable funding ratio (NSFR) ⁽⁴⁾			145 %	154 %	
			114 %	117 %	
Other information					
Number of employees – Worldwide			28,189	26,920	5
Number of branches in Canada			385	384	–
Number of banking machines in Canada			937	927	1

(1) See the Glossary section on pages 45 to 48 for details on the composition of these measures.

(2) See the Financial Reporting Method section on pages 4 to 6 for additional information on non-GAAP financial measures.

(3) See the Financial Reporting Method section on pages 4 to 6 and see the Glossary section on pages 45 to 48 for additional information on non-GAAP ratios.

(4) See the Financial Reporting Method section on pages 4 to 6 for additional information on capital management measures.

Economic Review and Outlook

Global Economy

While the pandemic appears to be in retreat, the economic cycle remains tied to a hostile geopolitical environment ever since Russia invaded Ukraine. From a financial standpoint, the conflict has exacerbated what was already a clear trend reversal for risky assets, with equity markets suffering significant losses in the first few months of the year. In the real economy, consumers and businesses around the world have been affected by rising raw material and commodity prices. The shock has been particularly striking in Europe, where a significant portion of electric power is generated using natural gas, the price of which has surged. But the conflict in Ukraine has had repercussions far beyond the borders of the old continent. Sharply higher food and energy prices have also had negative impacts in emerging countries, where several central banks—especially those in energy-importing countries—have had to substantially tighten their monetary policies. The hikes in interest rates, combined with the recent increase in government borrowing and an appreciation of the U.S. dollar, have also increased the cost of servicing debt. Moreover, the global supply chain continues to suffer from China's zero-COVID policy. Given this environment, over the last three months we have revised our global growth forecast for 2022 downward, from 4.0%⁽¹⁾ to 3.2%⁽¹⁾.

Compared to other regions in the world, the United States was relatively well positioned to deal with the current challenges. While it is true that the world's largest economy contracted in the first quarter of 2022, this was not cause for much concern, since the drop was largely due to a sharp increase in imports. Domestic demand, which is more representative of the economy, continued to grow. After a rather slow recovery early in the pandemic, the labour market has strengthened considerably since one year, such that many businesses were forced to implement substantial increases in compensation. Implemented in an environment where inflation was already running high, these increases prompted the Federal Reserve to raise policy rates for the first time since 2019 and announce more rate hikes this year. This tightening of monetary policy should slow the pace of the U.S. economy in the coming months. Although households are still well positioned, and should be able to support consumption with some of their excess savings accumulated during the crisis, these savings could be depleted faster than expected, as inflation is running higher than expected. We expect U.S. GDP to grow 2.6%⁽¹⁾ in 2022 and 2.1%⁽¹⁾ in 2023.

Canadian Economy

In Canada, inflation is higher than expected and the unemployment rate is at a record low, so the central bank can be expected to continue normalizing interest rates at an accelerating pace. Like other global economies, the Canadian economy could be affected by the inflationary pressures resulting from the war in Europe and lockdowns in China, but it remains in a relatively good position. Consumers have surplus savings, which should help them to absorb the shock, and the labour market, which is enjoying full employment, should allow for decent wage growth. Canada's strong natural resources sector may also offset part of the consumption shock. As for governments, nothing in the recent federal and provincial budgets leads us to predict a period of austerity. Our growth forecast is now 4.0%⁽¹⁾ for 2022, since the economy expanded faster than expected in the first quarter. More moderate growth of 2.2%⁽¹⁾ is expected in 2023.

Quebec Economy

Despite stricter public health restrictions than in many other provinces, Quebec's economy proved resilient, as GDP continued to grow at the beginning of the year, reaching a record level. The result is that the economic recovery in this province outstripped that observed in the rest of the country, even though some industries continued to be affected by the public health measures. Quebec's labour market also performed well: the unemployment rate even dropped to a historical low. Despite a slowdown in home sales, residential construction remained solid. We remain optimistic about growth in 2022, given the very diversified economy, the fiscal leeway available to the Quebec government, and lower household debt than elsewhere in the country. After 6.2%⁽¹⁾ growth in 2021, Quebec's economy should slow down to 3.1%⁽¹⁾ in 2022 with growth of 1.9%⁽¹⁾ in 2023.

(1) GDP growth forecasts, National Bank Financial's Economics and Strategy group.

Financial Analysis

Consolidated Results

(millions of Canadian dollars)

	Quarter ended April 30			Six months ended April 30		
	2022	2021	% Change	2022	2021	% Change
Operating results						
Net interest income	1,313	1,156	14	2,645	2,363	12
Non-interest income	1,126	1,082	4	2,260	2,099	8
Total revenues	2,439	2,238	9	4,905	4,462	10
Non-interest expenses	1,293	1,199	8	2,570	2,379	8
Income before provisions for credit losses and income taxes	1,146	1,039	10	2,335	2,083	12
Provisions for credit losses	3	5	(40)	1	86	(99)
Income before income taxes	1,143	1,034	11	2,334	1,997	17
Income taxes	250	233	7	509	435	17
Net income	893	801	11	1,825	1,562	17
Diluted earnings per share (<i>dollars</i>)	2.55	2.25	13	5.19	4.40	18
Taxable equivalent basis⁽¹⁾						
Net interest income	49	42		109	96	
Non-interest income	3	2		7	5	
Income taxes	52	44		116	101	
Impact of taxable equivalent basis on net income	—	—		—	—	
Operating results – Adjusted⁽¹⁾						
Net interest income – Adjusted	1,362	1,198	14	2,754	2,459	12
Non-interest income – Adjusted	1,129	1,084	4	2,267	2,104	8
Total revenues – Adjusted	2,491	2,282	9	5,021	4,563	10
Non-interest expenses – Adjusted	1,293	1,199	8	2,570	2,379	8
Income before provisions for credit losses and income taxes – Adjusted	1,198	1,083	11	2,451	2,184	12
Provisions for credit losses	3	5	(40)	1	86	(99)
Income before income taxes – Adjusted	1,195	1,078	11	2,450	2,098	17
Income taxes – Adjusted	302	277	9	625	536	17
Net income – Adjusted	893	801	11	1,825	1,562	17
Diluted earnings per share – Adjusted (<i>dollars</i>)	2.55	2.25	13	5.19	4.40	18
Average assets ⁽²⁾	384,839	360,945	7	386,882	359,505	8
Average loans and acceptances ⁽²⁾	189,831	168,700	13	187,760	167,119	12
Average deposits ⁽²⁾	251,260	233,829	7	253,069	230,684	10
Operating leverage – Adjusted ⁽³⁾	1.4 %	1.0 %		2.0 %	2.5 %	
Efficiency ratio – Adjusted ⁽³⁾	51.9 %	52.5 %		51.2 %	52.1 %	

(1) See the Financial Reporting Method section on pages 4 to 6 for additional information on non-GAAP financial measures.

(2) Represents an average of the daily balances for the period.

(3) See the Financial Reporting Method section on pages 4 to 6 and see the Glossary section on pages 45 to 48 for additional information on non-GAAP ratios.

Financial Results

For the second quarter of 2022, the Bank is reporting net income of \$893 million compared to \$801 million in the second quarter of 2021. Second-quarter diluted earnings per share stood at \$2.55, up 13% from \$2.25 in the second quarter of 2021. This growth was driven by year-over-year increases in total revenues across all of the business segments. Income before provisions for credit losses and income taxes totalled \$1,146 million in the second quarter of 2022 compared to \$1,039 million in the second quarter of 2021, a 10% increase resulting from good performance across all of the business segments.

For the six month-period ended April 30, 2022, the Bank's net income totalled \$1,825 million compared to \$1,562 million in the same period of 2021. First-half diluted earnings per share stood at \$5.19 compared to \$4.40 in the same six-month period of 2021. The excellent performance turned in by all of the business segments was driven by revenue growth, while lower provisions for credit losses on impaired loans contributed to increases in net income and diluted earnings per share. First-half income before provisions for credit losses and income taxes totalled \$2,335 million, a 12% year-over-year increase driven by revenue growth across all of the business segments.

Return on common shareholders' equity was 21.2% for the six-month period ended April 30, 2022 compared to 21.6% in the same six-month period of 2021.

Total Revenues

For the second quarter of 2022, the Bank's total revenues amounted to \$2,439 million, rising \$201 million or 9% year over year. In the Personal and Commercial segment, second-quarter total revenues rose 9% year over year owing to loan and deposit growth, tempered by a lower net interest margin, and to increases in credit card revenues, revenues from bankers' acceptances, and revenues from foreign exchange activities. In the Wealth Management segment, second-quarter total revenues grew 7% year over year, resulting from an increase in net interest income as well as from an increase in fee-based revenues related to growth in average assets under administration and under management, notably revenues from investment management and trust service fees. In the Financial Markets segment, second-quarter total revenues on a taxable equivalent basis increased by 8% year over year due to an increase in global markets revenues, tempered by lower corporate and investment banking revenues. In the USSF&I segment, second-quarter total revenues were up 20% year over year owing to sustained growth in ABA Bank's revenues as a result of business growth as well as to an increase in Credigy's revenues. For the *Other* heading of segment results, second-quarter total revenues reflect a lower contribution from treasury activities, partly offset by higher gains on investments than those recorded in the second quarter of 2021.

For the six-month period ended April 30, 2022, total revenues amounted to \$4,905 million, up \$443 million or 10% from \$4,462 million in the same six-month period of 2021. In the Personal and Commercial segment, first-half total revenues rose \$157 million or 9% year over year owing to an increase in net interest income, as both loans and deposits grew, as well as to increases in credit card revenues, insurance revenues, revenues from bankers' acceptances, revenues from foreign exchange activities, and internal commission revenues related to the distribution of Wealth Management products. In the Wealth Management segment, first-half total revenues grew 11% year over year, mainly resulting from an increase in fee-based revenues related to growth in average assets under administration and under management as well as from stronger stock market performance than in the first half of 2021. In the Financial Markets segment, first-half total revenues on a taxable equivalent basis were up \$109 million or 9% year over year given growth in global markets revenues, tempered by a decrease in corporate and investment banking revenues. In the USSF&I segment, first-half total revenues were up 12% year over year owing to revenue growth at the ABA Bank subsidiary, which was driven by higher loans and deposits, partly offset by a decrease in Credigy's revenues, notably due to a gain realized in the first half of 2021 upon a disposal of loan portfolios and to a more favourable impact of remeasuring certain loan portfolios during the first half of 2021. Lastly, for the *Other* heading of segment results, first-half total revenues increased year over year due to higher gains on investments, partly offset by a lower contribution from treasury activities.

Non-Interest Expenses

For the second quarter of 2022, non-interest expenses stood at \$1,293 million, up 8% from the second quarter of 2021. The increase was essentially attributable to higher compensation and employee benefits, notably due to wage growth and a greater number of employees as well as to the variable compensation associated with revenue growth. In addition, technology expenses, including amortization, increased as a result of significant investments made to support the Bank's technological evolution.

For the six-month period ended April 30, 2022, the Bank's non-interest expenses stood at \$2,570 million, an 8% year-over-year increase that was essentially attributable to higher compensation and employee benefits, notably due to wage growth and a greater number of employees as well as to the variable compensation associated with revenue growth. First-half technology expenses and professional fees were also up year over year, as significant investments were made to support the Bank's technological evolution and business development plan. These increases were tempered by a decrease in certain expenses, in particular a \$20 million reversal of the provision for the compensatory tax on salaries paid in Quebec during the first quarter of 2022, as well as to a decrease in the expenses incurred by the Bank to take measures in response to COVID-19.

Provisions for Credit Losses

For the second quarter of 2022, the Bank recorded \$3 million in provisions for credit losses compared to \$5 million in the same quarter of 2021. Reversals of allowances for credit losses on non-impaired loans, recorded during the second quarter of 2022 in response to updated macroeconomic factors and risk parameters, were lower than the reversals recorded in the second quarter of 2021, notably on non-impaired Commercial Banking and Credigy loans as well as on non-impaired credit card receivables. Second-quarter provisions for credit losses on impaired loans were down \$37 million compared to the second quarter of 2021, mainly due to the Wealth Management segment and Financial Markets segment, whereas the provisions for credit losses on impaired loans of the ABA Bank subsidiary increased. The ratio of provisions for credit losses as a percentage of average loans and acceptances was 1 basis point, unchanged from the same quarter in 2021.

For the six-month period ended April 30, 2022, the Bank recorded \$1 million in provisions for credit losses compared to \$86 million in the same period of 2021. This decrease was mainly due to lower provisions for credit losses on impaired Commercial Banking and Financial Markets loans compared to the same first-half period in 2021, partly offset by an increase in the provisions for credit losses on the impaired loans of the ABA Bank subsidiary resulting from the end of relief measures granted to the subsidiary's clients. Commercial Banking, the Financial Markets segment, and ABA Bank recorded higher reversals of allowances for credit losses on non-impaired loans in the first half of 2022, whereas lower reversals of allowances for credit losses on non-impaired loans were recorded by Personal Banking (including credit card receivables) and the Credigy subsidiary.

Income Taxes

For the second quarter of 2022, income taxes stood at \$250 million compared to \$233 million in the same quarter of 2021. The 2022 second-quarter effective income tax rate was 22% compared to 23% in the same quarter of 2021. The change in the effective income tax rate stems mainly from a higher level of tax-exempt dividend income compared to the same quarter of 2021.

For the six-month period ended April 30, 2022, the effective income tax rate stood at 22%, unchanged from the same six-month period in 2021.

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. Other operating activities, certain specified items, Treasury activities, and the activities of the Flinks Technology Inc. (Flinks) subsidiary 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		
	2022	2021 ⁽¹⁾	% Change	2022	2021 ⁽¹⁾	% Change
Operating results						
Net interest income	670	617	9	1,339	1,246	7
Non-interest income	292	265	10	581	517	12
Total revenues	962	882	9	1,920	1,763	9
Non-interest expenses	525	484	8	1,057	980	8
Income before provisions for credit losses and income taxes	437	398	10	863	783	10
Provisions for credit losses	11	(17)	(165)	6	28	(79)
Income before income taxes	426	415	3	857	755	14
Income taxes	113	110	3	227	200	14
Net income	313	305	3	630	555	14
Net interest margin ⁽²⁾	2.09 %	2.14 %		2.07 %	2.15 %	
Average interest-bearing assets ⁽²⁾	131,353	118,392	11	130,498	117,044	11
Average assets ⁽³⁾	137,838	123,728	11	137,050	122,159	12
Average loans and acceptances ⁽³⁾	137,279	123,048	12	136,309	121,621	12
Net impaired loans ⁽²⁾	191	235	(19)	191	235	(19)
Net impaired loans as a % of loans and acceptances ⁽²⁾	0.1 %	0.2 %		0.1 %	0.2 %	
Average deposits ⁽³⁾	78,922	74,766	6	79,503	74,261	7
Efficiency ratio ⁽²⁾	54.6 %	54.9 %		55.1 %	55.6 %	

(1) For the quarter and six-month period ended April 30, 2021, certain amounts have been reclassified, in particular amounts of the loan portfolio of borrowers in the "Oil and gas, and pipelines" sector and related activities, which were transferred from the Personal and Commercial segment to the Financial Markets segment.

(2) See the Glossary section on pages 45 to 48 for details on the composition of these measures.

(3) Represents an average of the daily balances for the period.

In the Personal and Commercial segment, net income totalled \$313 million in the second quarter of 2022 compared to \$305 million in the second quarter of 2021, a 3% increase as growth in total revenues was tempered by higher provisions for credit losses. The segment's second-quarter income before provisions for credit losses and income taxes grew 10% year over year. Second-quarter net interest income was up 9% as a result of personal and commercial loan and deposit growth, which more than offset a lower net interest margin, which was 2.09% in second-quarter 2022 compared to 2.14% in second-quarter 2021. Furthermore, the segment's second-quarter non-interest income was up \$27 million or 10% year over year.

Personal Banking's second-quarter total revenues increased by \$28 million year over year. This increase came primarily from higher net interest income, owing to growth in loans and deposits, in credit card revenues, and in internal commission revenues related to the distribution of Wealth Management products. Commercial Banking's second-quarter total revenues grew \$52 million year over year, mainly due to an increase in net interest income, which was driven by loan and deposit growth, as well as to increases in revenues from foreign exchange activities and in revenues from bankers' acceptances.

For the second quarter of 2022, the Personal and Commercial segment's non-interest expenses stood at \$525 million, an 8% year-over-year increase that was mainly due to increases in compensation and employee benefits, in operations support charges, and in investments made to support the segment's technological evolution. At 54.6%, the segment's second-quarter efficiency ratio improved by 0.3 percentage points compared to the second quarter of 2021. The segment recorded \$11 million in provisions for credit losses in the second quarter of 2022 compared to \$17 million in recoveries of credit losses in the second quarter of 2021. This increase was mainly due to higher reversals of allowances for credit losses on non-impaired loans in the second quarter of 2021.

For the six-month period ended April 30, 2022, the segment's net income totalled \$630 million, an increase from \$555 million in the same period of 2021. This increase was due to a \$157 million increase in the segment's first-half total revenues as well as to a \$22 million decrease in its first-half provisions for credit losses. First-half income before provisions for credit losses and income taxes totalled \$863 million, a 10% year-over-year increase. Personal Banking's first-half total revenues were up, mainly due to growth in loans and deposits, tempered by a lower net interest margin, as well as to increases in credit card revenues, insurance revenues, and internal commission revenues related to the distribution of Wealth Management products. Commercial Banking's first-half total revenues increased by 15% due to growth in loans and deposits, tempered by a lower net interest margin, as well as to increases in revenues from bankers' acceptances and in revenues from foreign exchange activities.

For the six-month period ended April 30, 2022, the Personal and Commercial segment's non-interest expenses stood at \$1,057 million, an 8% year-over-year increase that was mainly due to higher compensation and employee benefits, higher operations support charges, and expenses incurred for the segment's technological evolution. At 55.1%, the first-half efficiency ratio improved by 0.5 percentage points from the same period in 2021. The segment recorded \$6 million in provisions for credit losses in the first half of 2022 compared to \$28 million in the same period of 2021. This decrease was mainly due to lower provisions for credit losses on impaired Commercial Banking loans. In addition, higher reversals of allowances for credit losses on non-impaired Commercial Banking loans resulting from more favourable risk parameters were recorded in the first half of 2022. First-half reversals of allowances for credit losses on non-impaired Personal Banking loans (including credit card receivables) were lower than those recorded in the same period of 2021.

Wealth Management

(millions of Canadian dollars)	Quarter ended April 30			Six months ended April 30		
	2022	2021 ⁽¹⁾	% Change	2022	2021 ⁽¹⁾	% Change
Operating results						
Net interest income	127	111	14	246	220	12
Fee-based revenues	359	318	13	731	622	18
Transaction-based and other revenues	93	112	(17)	194	217	(11)
Total revenues	579	541	7	1,171	1,059	11
Non-interest expenses	349	316	10	701	621	13
Income before provisions for credit losses and income taxes	230	225	2	470	438	7
Provisions for credit losses	—	2		—	—	
Income before income taxes	230	223	3	470	438	7
Income taxes	61	59	3	125	116	8
Net income	169	164	3	345	322	7
Average assets ⁽²⁾	8,125	6,976	16	8,130	6,753	20
Average loans and acceptances ⁽²⁾	7,056	5,818	21	7,004	5,597	25
Net impaired loans ⁽³⁾	19	7		19	7	
Average deposits ⁽²⁾	34,800	33,943	3	34,403	34,423	—
Assets under administration ⁽³⁾	627,739	596,845	5	627,739	596,845	5
Assets under management ⁽³⁾	114,932	105,322	9	114,932	105,322	9
Efficiency ratio ⁽³⁾	60.3 %	58.4 %		59.9 %	58.6 %	

(1) For the quarter and six-month period ended April 30, 2021, certain amounts have been reclassified.

(2) Represents an average of the daily balances for the period.

(3) See the Glossary section on pages 45 to 48 for details on the composition of these measures.

In the Wealth Management segment, net income totalled \$169 million in the second quarter of 2022, a 3% increase from \$164 million in the second quarter of 2021. The segment's second-quarter total revenues amounted to \$579 million, up \$38 million or 7% from \$541 million in the second quarter of 2021. The increase was due to a 13% increase in fee-based revenues, attributable to growth in average assets under administration and under management as a result of excellent net inflows into the various solutions and to stronger stock market performance compared to the second quarter of 2021. Also contributing to the increase in total revenues was a \$16 million or 14% increase in net interest income arising from higher interest rates and from growth in loan and deposit volumes in the second quarter of 2022. As for second-quarter transaction-based and other revenues, they were down 17% year over year as commissions on transactions and on new issuances were lower in the second quarter of 2022.

For the second quarter of 2022, the segment's non-interest expenses stood at \$349 million, a 10% year-over-year increase that was due to higher compensation and employee benefits, notably the variable compensation associated with the segment's revenue growth, as well as to higher external management fees and operations support charges. At 60.3%, the segment's second-quarter efficiency ratio compares to 58.4% in the second quarter of 2021. The segment's provisions for credit losses were nil in the second quarter of 2022, whereas \$2 million in provisions for credit losses on impaired loans had been recorded during the second quarter of 2021.

For the six-month period ended April 30, 2022, the Wealth Management segment's net income totalled \$345 million, up 7% from \$322 million in the same six-month period of 2021. The segment's first-half total revenues amounted to \$1,171 million, up 11% from \$1,059 million in the same period of 2021. An 18% year-over-year increase in first-half fee-based revenues was driven by growth in average assets under administration and management as a result of net inflows into various solutions and by stronger stock market performance compared to the same period in 2021. In addition, first-half net interest income was up \$26 million, mainly due to growth in loan and deposit volumes as well as to the margin on deposits. First-half transaction-based and other revenues were down 11% year over year owing to a decrease in trading volume during this period. First-half non-interest expenses stood at \$701 million compared to \$621 million in the first half of 2021; this increase was due to higher compensation and employee benefits, notably the variable compensation associated with revenue growth, and to an increase in external management fees and operations support charges related to business growth and the segment's initiatives. At 59.9%, the first-half efficiency ratio compares to 58.6% in the same period of 2021. The provisions for credit losses were nil in the first-half periods of 2022 and 2021.

Financial Markets

(taxable equivalent basis)⁽¹⁾

(millions of Canadian dollars)

	Quarter ended April 30			Six months ended April 30		
	2022	2021 ⁽²⁾	% Change	2022	2021 ⁽²⁾	% Change
Operating results						
Global markets						
Equities	287	138	108	570	339	68
Fixed-income	69	99	(30)	179	215	(17)
Commodities and foreign exchange	40	32	25	80	70	14
	396	269	47	829	624	33
Corporate and investment banking	236	318	(26)	465	561	(17)
Total revenues ⁽¹⁾	632	587	8	1,294	1,185	9
Non-interest expenses	255	229	11	515	460	12
Income before provisions for credit losses and income taxes	377	358	5	779	725	7
Provisions for credit losses	(16)	21	(176)	(32)	41	(178)
Income before income taxes	393	337	17	811	684	19
Income taxes ⁽¹⁾	104	89	17	215	181	19
Net income	289	248	17	596	503	18
Average assets ⁽³⁾	149,029	148,137	1	153,467	150,326	2
Average loans and acceptances ⁽³⁾ (Corporate Banking only)	21,431	19,530	10	20,815	19,651	6
Net impaired loans ⁽⁴⁾	3	76	(96)	3	76	(96)
Average deposits ⁽³⁾	45,203	43,442	4	46,346	41,658	11
Efficiency ratio ⁽⁴⁾	40.3 %	39.0 %		39.8 %	38.8 %	

(1) The *Total revenues* and *Income taxes* items of the Financial Markets segment are presented on a taxable equivalent basis. Taxable equivalent basis is a calculation method that consists in grossing up certain tax-exempt income by the amount of income tax that would have been otherwise payable. For the quarter ended April 30, 2022, *Total revenues* were grossed up by \$50 million (\$41 million in 2021) and an equivalent amount was recognized in *Income taxes*. For the six-month period ended April 30, 2022, *Total revenues* were grossed up by \$113 million (\$97 million in 2021) and an equivalent amount was recognized in *Income taxes*. The effect of these adjustments is reversed under the *Other* heading.

(2) For the quarter and six-month period ended April 30, 2021, certain amounts have been reclassified, in particular amounts of the loan portfolio of borrowers in the "Oil and gas, and pipelines" sector and related activities, which were transferred from the Personal and Commercial segment to the Financial Markets segment.

(3) Represents an average of the daily balances for the period.

(4) See the Glossary section on pages 45 to 48 for details on the composition of these measures.

In the Financial Markets segment, net income totalled \$289 million in the second quarter of 2022 compared to \$248 million in the second quarter of 2021, a 17% increase resulting from revenue growth and from lower provisions for credit losses on impaired loans. Second-quarter income before provisions for credit losses and income taxes totalled \$377 million, up 5% from the second quarter of 2021. Second-quarter total revenues amounted to \$632 million, up \$45 million or 8% from \$587 million in the second quarter of 2021. Second-quarter global markets revenues rose 47% year over year, mainly due to higher revenues from equity securities as market conditions favoured greater activity, partly offset by a decrease in revenues from fixed-income securities. As for second-quarter corporate and investment banking revenues, they decreased 26% year over year due to decreases in revenues from capital markets activities, in revenues from merger and acquisition activities, and in banking service revenues.

In the second quarter of 2022, the segment's non-interest expenses stood at \$255 million, an 11% year-over-year increase that was due to higher compensation and employee benefits as well as to higher technology investment expenses and operations support charges. At 40.3%, the segment's second-quarter efficiency ratio compares to 39.0% in the same quarter of 2021. The segment recorded \$16 million in recoveries of credit losses in the second quarter of 2022 compared to \$21 million in provisions for credit losses in the second quarter of 2021. This decrease was essentially due to a \$39 million year-over-year decrease in provisions for credit losses on impaired loans.

For the six months ended April 30, 2022, the segment's net income totalled \$596 million, up 18% from the same six-month period in 2021. First-half income before provisions for credit losses and income taxes totalled \$779 million, up 7% from the first half of 2021. First-half total revenues amounted to \$1,294 million, up \$109 million or 9% from \$1,185 million in the same period of 2021. Global markets revenues rose 33%, mainly due to higher revenues from equity securities and from commodities and foreign exchange activities, as market conditions favoured greater client activity, partly offset by a 17% decrease in revenues from fixed-income securities. As for first-half corporate and investment banking revenues, they were down 17% year over year due to decreases in revenues related to capital markets activities, in revenues related to merger and acquisition activities, and in banking service revenues.

The segment's first-half non-interest expenses increased 12% year over year. This increase was due to higher compensation and employee benefits, in particular the variable compensation associated with revenue growth, as well as to increases in technology investments and in operations support charges. At 39.8%, the first-half efficiency ratio compares to 38.8% in the same period of 2021. The segment recorded \$32 million in recoveries of credit losses during the six-month period ended April 30, 2022 compared to \$41 million in provisions for credit losses in the same six-month period of 2021. This decrease was due to a \$66 million year-over-year decrease in provisions for credit losses on impaired loans as well as to higher reversals of allowances for credit losses on non-impaired loans in the first half of 2022 given more favourable risk parameters.

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

(millions of Canadian dollars)

	Quarter ended April 30			Six months ended April 30		
	2022	2021	% Change	2022	2021	% Change
Total revenues						
Credigy	120	115	4	246	270	(9)
ABA Bank	164	121	36	322	240	34
International	1	1		2	1	
	285	237	20	570	511	12
Non-interest expenses						
Credigy	35	34	3	68	73	(7)
ABA Bank	52	42	24	99	86	15
International	1	1		1	1	
	88	77	14	168	160	5
Income before provisions for credit losses and income taxes	197	160	23	402	351	15
Provisions for credit losses						
Credigy	4	(12)	(133)	18	4	350
ABA Bank	5	11	(55)	9	13	(31)
	9	(1)		27	17	59
Income before income taxes	188	161	17	375	334	12
Income taxes						
Credigy	17	24	(29)	34	45	(24)
ABA Bank	19	8	138	41	24	71
	36	32	13	75	69	9
Net income						
Credigy	64	69	(7)	126	148	(15)
ABA Bank	88	60	47	173	117	48
International	–	–		1	–	
	152	129	18	300	265	13
Average assets ⁽¹⁾	18,230	15,894	15	18,100	15,717	15
Average loans and receivables ⁽¹⁾	14,647	12,258	19	14,515	12,099	20
Net impaired loans – Stage 3 ⁽²⁾	80	31	158	80	31	158
Purchased or originated credit-impaired (POCI) loans	376	598	(37)	376	598	(37)
Average deposits ⁽¹⁾	8,342	6,492	28	8,115	6,331	28
Efficiency ratio ⁽²⁾	30.9 %	32.5 %		29.5 %	31.3 %	

(1) Represents an average of the daily balances for the period.

(2) See the Glossary section on pages 45 to 48 for details on the composition of these measures.

In the USSF&I segment, net income totalled \$152 million in the second quarter of 2022 compared to \$129 million in the second quarter of 2021, an 18% increase attributable to the ABA Bank subsidiary. The segment's second-quarter total revenues amounted to \$285 million, up \$48 million or 20% from \$237 million in the second quarter of 2021. This total revenue growth was driven by a \$43 million increase in ABA Bank's revenues as well as by a \$5 million increase in Credigy's revenues. For the six-month period ended April 30, 2022, the segment recorded net income of \$300 million compared to \$265 million in the same six-month period of 2021, a 13% increase driven by business growth at ABA Bank.

Credigy

For the second quarter of 2022, the Credigy subsidiary's net income totalled \$64 million, a \$5 million or 7% year-over-year decrease that was essentially due to higher provisions for credit losses. Income before provisions for credit losses and income taxes totalled \$85 million in the second quarter of 2022, up 5% year over year. Second-quarter total revenues amounted to \$120 million compared to \$115 million in the second quarter of 2021. Second-quarter non-interest expenses stood at \$35 million, relatively stable year over year. The subsidiary's second-quarter provisions for credit losses were up \$16 million year over year, as reversals of allowances for credit losses on non-impaired loans had been recorded in the second quarter of 2021 in response to improvements in macroeconomic factors.

For the six-month period ended April 30, 2022, the Credigy subsidiary's net income totalled \$126 million, down \$22 million from the same period in 2021. Its first-half total revenues amounted to \$246 million, down from \$270 million in the same first-half period of 2021. Growth in net interest income was more than offset by a decrease in non-interest income, as a \$26 million gain had been realized in the first half of 2021 following a disposal of loan portfolios and given a favourable impact of remeasuring the fair value of certain portfolios during the same period of 2021. First-half non-interest expenses were down \$5 million due to a decrease in variable compensation, partly offset by an increase in service charges. The first-half provisions for credit losses were up \$14 million compared to the same period of 2021, as higher reversals of allowances for credit losses on non-impaired loans had been recorded in the first half of 2021 in response to improvements in macroeconomic factors.

ABA Bank

For the second quarter of 2022, the ABA Bank subsidiary's net income totalled \$88 million, up \$28 million or 47% from the same quarter in 2021. ABA Bank's second-quarter total revenues grew 36% year over year owing to sustained loan and deposit growth, tempered by lower interest rates. Second-quarter non-interest expenses stood at \$52 million, a \$10 million year-over-year increase related to the subsidiary's business growth. The subsidiary recorded \$5 million in provisions for credit losses in the second quarter of 2022 compared to \$11 million in the same quarter of 2021. This decrease was essentially due to provisions for credit losses on non-impaired loans, partly offset by an increase in provisions for credit losses on impaired loans resulting from the end of relief measures granted to clients.

For the six-month period ended April 30, 2022, the ABA Bank subsidiary's net income totalled \$173 million, up 48% year over year. Growth in the subsidiary's business activities, mainly sustained growth in loans and deposits, explains a 34% increase in its first-half total revenues, tempered by lower interest rates. The subsidiary's first-half non-interest expenses stood at \$99 million, a 15% year-over-year increase that was notably due to variable compensation as well as to the wages and occupancy costs related to the subsidiary's business growth. The subsidiary's first-half provisions for credit losses stood at \$9 million, a \$4 million year-over-year decrease resulting from lower provisions for credit losses on non-impaired loans.

Other

(millions of Canadian dollars)	Quarter ended April 30		Six months ended April 30	
	2022	2021 ⁽¹⁾	2022	2021 ⁽¹⁾
Operating results				
Net interest income ⁽²⁾	(116)	(89)	(240)	(175)
Non-interest income ⁽²⁾	97	80	190	119
Total revenues	(19)	(9)	(50)	(56)
Non-interest expenses	76	93	129	158
Income before provisions for credit losses and income taxes	(95)	(102)	(179)	(214)
Provisions for credit losses	(1)	–	–	–
Income before income taxes	(94)	(102)	(179)	(214)
Income taxes (recovery) ⁽²⁾	(64)	(57)	(133)	(131)
Net loss	(30)	(45)	(46)	(83)
Non-controlling interests	(1)	–	(1)	–
Net loss attributable to the Bank's shareholders and holders of other equity instruments	(29)	(45)	(45)	(83)
Average assets ⁽³⁾	71,617	66,210	70,135	64,550

(1) For the quarter and six-month period ended April 30, 2021, certain amounts have been reclassified.

(2) For the quarter ended April 30, 2022, *Net interest income* was reduced by \$49 million (\$42 million in 2021), *Non-interest income* was reduced by \$3 million (\$2 million in 2021), and an equivalent amount was recorded in *Income taxes*. For the six-month period ended April 30, 2022, *Net interest income* was reduced by \$109 million (\$96 million in 2021), *Non-interest income* was reduced by \$7 million (\$5 million in 2021), and an equivalent amount was recorded in *Income taxes*. These adjustments include a reversal of the taxable equivalent of the Financial Markets segment and the *Other* heading. Taxable equivalent basis is a calculation method that consists in grossing up certain tax-exempt income by the amount of income tax that would have otherwise been payable.

(3) Represents an average of the daily balances for the period.

For the *Other* heading of segment results, there was a net loss of \$30 million in the second quarter of 2022 compared to a net loss of \$45 million in the second quarter of 2021. This change in net loss was essentially due to a decrease in non-interest expenses, in particular variable compensation and the pension plan expense. These decreases were partly offset by an increase in the investments made to support the Bank's technological evolution.

For the six-month period ended April 30, 2022, there was a net loss of \$46 million compared to a net loss of \$83 million in the same six-month period of 2021. This change in net loss came from higher gains on investments recorded in the first half of 2022 as well as from a decrease in non-interest expenses, notably variable compensation, the pension plan expense, and a \$20 million reversal of the provision for the compensatory tax on salaries paid in Quebec. These decreases were tempered by an increase in the investments made to support the Bank's technological evolution.

Consolidated Balance Sheet

Consolidated Balance Sheet Summary

(millions of Canadian dollars)	As at April 30, 2022	As at October 31, 2021	% Change
Assets			
Cash and deposits with financial institutions	30,423	33,879	(10)
Securities	100,455	106,304	(6)
Securities purchased under reverse repurchase agreements and securities borrowed	11,741	7,516	56
Loans and acceptances, net of allowances	194,029	182,689	6
Other	33,137	25,407	30
	369,785	355,795	4
Liabilities and equity			
Deposits	246,684	240,938	2
Other	101,913	95,233	7
Subordinated debt	764	768	(1)
Equity attributable to the Bank's shareholders and holders of other equity instruments	20,422	18,853	8
Non-controlling interests	2	3	(33)
	369,785	355,795	4

Assets

As at April 30, 2022, the Bank had total assets of \$369.8 billion, a \$14.0 billion or 4% increase from \$355.8 billion as at October 31, 2021. Cash and deposits with financial institutions, totalling \$30.4 billion as at April 30, 2022, decreased by \$3.5 billion, mainly due to deposits with the Bank of Canada. Cash and deposits with financial institutions remained high due to the liquidity obtained as part of financing initiatives deployed by the Canadian government in 2020, through the Bank of Canada, to support the Canadian financial system in response to COVID-19.

Securities totalled \$100.5 billion as at April 30, 2022, decreasing \$5.8 billion since October 31, 2021 due to a \$6.7 billion or 8% decrease in securities at fair value through profit or loss, essentially equity securities, partly offset by growth in securities issued or guaranteed by the Canadian government as well as in securities issued by U.S. Treasury, other U.S. agencies and other foreign governments. Securities purchased under reverse repurchase agreements and securities borrowed rose \$4.2 billion, mainly related to the activities of the Financial Markets segment.

Totalling \$194.0 billion as at April 30, 2022, loans and acceptances, net of allowances for credit losses, rose \$11.3 billion or 6% since October 31, 2021. The following table provides a breakdown of the main loan and acceptance portfolios.

(millions of Canadian dollars)	As at April 30, 2022	As at October 31, 2021	As at April 30, 2021
Loans and acceptances			
Residential mortgage and home equity lines of credit	103,987	99,146	93,674
Personal	15,463	14,449	13,399
Credit card	2,252	2,150	1,985
Business and government	73,242	67,942	63,688
	194,944	183,687	172,746
Allowances for credit losses	(915)	(998)	(1,114)
	194,029	182,689	171,632

Since October 31, 2021, residential mortgages (including home equity lines of credit) rose \$4.9 billion or 5% given sustained demand for mortgage credit in the Personal and Commercial segment and at the ABA Bank subsidiary. Also since October 31, 2021, personal loans were up as a result of business activity at Personal Banking and ABA Bank, credit card receivables increased as clients gradually resumed consumption habits, and loans and acceptances to business and government rose \$5.3 billion or 8% owing to business growth at Commercial Banking and in corporate financial services.

When compared to April 30, 2021, loans and acceptances, net of allowances for credit losses, grew \$22.4 billion or 13%, residential mortgages (including home equity lines of credit) were up \$10.3 billion or 11% due to sustained demand for mortgage credit and to business growth at ABA Bank, and personal loans grew \$2.1 billion as a result of business activity at Personal Banking and ABA Bank. Also since April 30, 2021, credit card receivables rose \$0.3 billion as consumer spending resumed, and loans and acceptances to business and government rose \$9.5 billion or 15% owing essentially to the activities of Commercial Banking, corporate financial services, and the Credigy subsidiary.

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, 2022, gross impaired loans excluding POCI loans stood at \$611 million compared to \$662 million as at October 31, 2021. Net impaired loans excluding POCI loans stood at \$293 million as at April 30, 2022 compared to \$283 million as at October 31, 2021, a \$10 million increase related mainly to an increase in the net impaired loans of the ABA Bank loan portfolios resulting from the end of relief measures granted to the subsidiary's clients. This increase was partly offset by a decrease in the net impaired loans of the Personal Banking, Commercial Banking, and Financial Markets' loan portfolios. Gross POCI loans stood at \$376 million as at April 30, 2022, whereas they had totalled \$464 million as at October 31, 2021, as a result of repayments and maturities of certain loan portfolios.

Other assets totalled \$33.1 billion as at April 30, 2022, a \$7.7 billion increase since October 31, 2021 that was mainly due to an increase in derivative financial instruments, essentially due to a greater number of contracts.

Liabilities

As at April 30, 2022, the Bank had total liabilities of \$349.4 billion compared to \$336.9 billion as at October 31, 2021.

As at April 30, 2022, the Bank's deposits stood at \$246.7 billion compared to \$240.9 billion as at October 31, 2021, rising \$5.8 billion or 2%. At \$71.8 billion as at April 30, 2022, personal deposits increased \$1.7 billion since October 31, 2021. This increase came mainly from business growth at Personal Banking and at ABA Bank.

Business and government deposits totalled \$169.7 billion as at April 30, 2022, rising \$1.8 billion since October 31, 2021. This increase came from Treasury funding activities, including \$2.9 billion in deposits subject to bank recapitalization (bail-in) conversion regulations as well as business and government deposits from Commercial Banking activities. Deposits from deposit-taking institutions stood at \$5.2 billion as at April 30, 2022, rising \$2.2 billion since October 31, 2021 due to Treasury funding activities.

Other liabilities stood at \$101.9 billion as at April 30, 2022, rising \$6.7 billion since October 31, 2021, essentially due to a \$7.0 billion increase in obligations related to securities sold under repurchase agreements and securities loaned.

Equity

As at April 30, 2022, equity attributable to the Bank's shareholders and holders of other equity instruments was \$20.4 billion, rising \$1.5 billion since October 31, 2021. This increase was due to net income net of dividends, to the issuance of common shares under the Stock Option Plan, to remeasurements of pension plans and other post-employment benefit plans, to the net fair value change attributable to the credit risk on financial liabilities designated at fair value through profit or loss, and to accumulated other comprehensive income, notably net unrealized foreign currency translation gains on investments in foreign operations. These increases were partly offset by repurchases of common shares for cancellation.

Exposure 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 Canada Mortgage and Housing Corporation (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, 2022, total commitments for this type of loan stood at \$4,995 million (\$4,048 million as at October 31, 2021). 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, 2021.

Related Party Transactions

The Bank's policies and procedures regarding related party transactions have not significantly changed since October 31, 2021. For additional information, see Note 28 to the audited annual consolidated financial statements for the year ended October 31, 2021.

Securitization and Off-Balance-Sheet Arrangements

In the normal course of business, the Bank is party to various financial arrangements that, under IFRS, are not required to be recorded on the Consolidated Balance Sheet or are recorded under amounts other than their notional or contractual values. These arrangements include, among others, transactions with structured entities, derivative financial instruments, the 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 57 and 58 of the *2021 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, 2021. For additional information about financial assets transferred but not derecognized, see Note 6 to these consolidated financial statements.

Income Taxes

In its April 7, 2022 budget, the Government of Canada proposed to introduce tax measures applicable to certain entities of banking and life insurer groups. These measures included the "Canada Recovery Dividend" (a one-time, 15% tax on the fiscal 2021 taxable income) and a 1.5% increase in the statutory tax rate. Since these proposed tax measures were not substantively enacted at the reporting date, no amount has been recognized in the Bank's consolidated financial statements as at April 30, 2022.

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 59 to 68 of the Bank's *2021 Annual Report*.

Basel Accord

The Bank and all other major Canadian banks have to maintain minimum capital ratios established by OSFI: a CET1 capital ratio of at least 10.5%, a Tier 1 capital ratio of at least 12.0%, and a Total capital ratio of at least 14.0%. For additional information on the ratio calculations, see page 60 of the *2021 Annual Report*. All of these ratios include a capital conservation buffer of 2.5% established by the BCBS and OSFI as well as a 1.0% surcharge applicable solely to Domestic Systemically Important Banks (D-SIBs) and a 2.5% 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. 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 requirement 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 were grandfathered and phased out over a ten-year period. As at April 30, 2022, the Bank has one remaining non-NVCC Tier 2 subordinated debt capital instrument, which has now been completely phased out of regulatory capital.

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. The available TLAC includes total capital as well as certain senior unsecured debts that satisfy all of the eligibility criteria of OSFI's TLAC guideline. Since November 1, 2021, OSFI has been requiring D-SIBs to maintain a risk-based TLAC ratio of at least 24.0% (including the domestic stability buffer) of risk-weighted assets and a TLAC leverage ratio of at least 6.75%. The TLAC ratio is calculated by dividing available TLAC by risk-weighted assets, and the TLAC leverage ratio is calculated by dividing available TLAC by total exposure. The Bank began issuing qualifying bail-in debt during the fiscal year ended October 31, 2019 such that its TLAC ratios would improve through the normal refinancing of its maturing unsecured term debt. As at April 30, 2022, outstanding liabilities of \$14.8 billion (\$11.9 billion as at October 31, 2021) were subject to conversion regulations for bail-in purposes.

Requirements – Regulatory Capital, Leverage, and TLAC Ratios

	As at April 30, 2022						
	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 domestic stability buffer
Capital ratios							
CET1	4.5 %	2.5 %	7.0 %	1.0 %	8.0 %	2.5 %	10.5 %
Tier 1	6.0 %	2.5 %	8.5 %	1.0 %	9.5 %	2.5 %	12.0 %
Total	8.0 %	2.5 %	10.5 %	1.0 %	11.5 %	2.5 %	14.0 %
Leverage ratio	3.0 %	n.a.	3.0 %	n.a.	3.0 %	n.a.	3.0 %
TLAC ratio	18.0 %	2.5 %	20.5 %	1.0 %	21.5 %	2.5 %	24.0 %
TLAC leverage ratio	6.75 %	n.a.	6.75 %	n.a.	6.75 %	n.a.	6.75 %

n.a. Not applicable

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

(2) On December 10, 2021, OSFI confirmed that the domestic stability buffer was being maintained at 2.5%.

The Bank ensures that its capital levels are always above the minimum capital requirements set by OSFI, including the domestic stability buffer. 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. Also available on the Bank's website is a complete list of capital instruments and their main features.

Regulatory Developments

The Bank closely monitors regulatory developments and participates actively in various consultative processes. On March 27, 2020, in response to the impact of the COVID-19 pandemic, 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 page 17 of the *2021 Annual Report*. For additional information on the regulatory context on October 31, 2021, see pages 62 and 63 of the Capital Management section in the *2021 Annual Report*. In addition, since November 1, 2021, the below-described regulatory developments should also be considered.

On November 29, 2021, OSFI postponed the implementation of the final Basel III reforms to the second quarter of 2023. The implementation date of the revised market risk framework and the credit valuation adjustment (CVA) risk framework remains the first quarter of 2024. OSFI also announced the details of its final policy positions on a series of key topics associated with guidelines that were the subject of extensive consultations in the spring of 2021.

On January 31, 2022, OSFI released its final capital and liquidity rules that incorporate the final Basel III reforms, and on February 7, 2022, OSFI published corresponding changes to the regulatory returns, i.e., the *Basel Capital Adequacy Return* (BCAR) and the *Leverage Requirements Return* (LRR).

On March 31, 2022, OSFI published, for consultation purposes, a draft guideline entitled *Assurance on Capital, Leverage and Liquidity Returns*. OSFI relies largely on the regulatory returns produced by financial institutions when assessing their safety and soundness. The purpose of this draft guideline is to better inform auditors and institutions on the work to be performed on regulatory returns in order to clarify and align OSFI's assurance expectations across all financial institutions. In particular, the draft guideline addresses the assurance that must be provided by an external audit, attestation by senior management, the assurance that must be provided by an internal audit, and the proposed effective dates. The Bank is actively participating in this consultation, comments for which are due by May 31, 2022.

Management Activities

On November 4, 2021, OSFI amended its capital distribution expectations, namely, by permitting financial institutions to increase regular dividends and, subject to OSFI approval, buy back shares.

On November 30, 2021, the Bank's Board of Directors approved a quarterly dividend increase on common shares of 16 cents for the first quarter of fiscal 2022 as well as a normal course issuer bid to repurchase for cancellation, which began on December 10, 2021, up to 7,000,000 common shares (representing approximately 2% of its common shares outstanding) over a 12-month period ending no later than December 9, 2022. This normal course issuer bid was approved by OSFI and the Toronto Stock Exchange (TSX) on December 8, 2021. During the six-month period ended April 30, 2022, the Bank repurchased 2,500,000 common shares under this program for \$245 million, which reduced *Common share* capital by \$24 million and *Retained earnings* by \$221 million.

Dividends

On May 26, 2022, the Board of Directors declared regular dividends on the various series of first preferred shares and a dividend of 92 cents per common share, up 5 cents per common share or 6%, payable on August 1, 2022 to shareholders of record on June 27, 2022.

Shares, Other Equity Instruments, and Stock Options

	As at April 30, 2022	
	Number of shares or LRCN ⁽¹⁾	\$ million
First preferred shares		
Series 30	14,000,000	350
Series 32	12,000,000	300
Series 38	16,000,000	400
Series 40	12,000,000	300
Series 42	12,000,000	300
	66,000,000	1,650
Other equity instruments		
LRCN – Series 1	500,000	500
LRCN – Series 2	500,000	500
	1,000,000	1,000
	67,000,000	2,650
Common shares	336,512,793	3,196
Stock options	12,040,704	

(1) Limited Recourse Capital Notes (LRCN).

As at May 20, 2022, there were 336,411,487 common shares and 12,038,204 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, LRCNs, 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 763 million Bank common shares, which would have a 69.4% dilutive effect based on the number of Bank common shares outstanding as at April 30, 2022.

Movement in Regulatory Capital⁽¹⁾

(millions of Canadian dollars)	Six months ended April 30, 2022
Common Equity Tier 1 (CET1) capital	
Balance at beginning	12,973
Issuance of common shares (including Stock Option Plan)	46
Impact of shares purchased or sold for trading	8
Repurchase of common shares	(245)
Other contributed surplus	8
Dividends on preferred and common shares and distributions on other equity instruments	(643)
Net income attributable to the Bank's shareholders and holders of other equity instruments	1,826
Removal of own credit spread (net of income taxes)	(416)
Other	483
Movements in accumulated other comprehensive income	
Translation adjustments	113
Debt securities at fair value through other comprehensive income	(76)
Other	(1)
Change in goodwill and intangible assets (net of related tax liability)	(49)
Other, including regulatory adjustments and transitional arrangements	
Change in defined benefit pension plan asset (net of related tax liability)	(131)
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)	1
Other deductions or regulatory adjustments to CET1 implemented by OSFI ⁽²⁾	(64)
Change in other regulatory adjustments	–
Balance at end	13,833
Additional Tier 1 capital	
Balance at beginning	2,649
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	(1)
Balance at end	2,648
Total Tier 1 capital	16,481
Tier 2 capital	
Balance at beginning	1,021
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	(5)
Other, including regulatory adjustments and transitional arrangements	(98)
Balance at end	918
Total regulatory capital	17,399

(1) See the Financial Reporting Method section on pages 4 to 6 for additional information on capital management measures.

(2) This item includes 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 page 17 of the 2021 Annual Report.

Risk-Weighted Assets by Key Risk Drivers

Risk-weighted assets (RWA) amounted to \$107.5 billion as at April 30, 2022 compared to \$104.4 billion as at October 31, 2021, a \$3.1 billion increase resulting mainly from organic growth in RWA and from foreign exchange movements, partly offset by improvement in the credit quality of the loan portfolio and of exposures to derivative financial instruments and by model updates. The changes in the Bank's RWA by risk type are presented in the following table.

Movement of Risk-Weighted Assets by Key Drivers⁽¹⁾

(millions of Canadian dollars)

			April 30, 2022	Quarter ended January 31, 2022	October 31, 2021
	Non-counterparty credit risk	Counterparty credit risk	Total	Total	Total
Credit risk – Risk-weighted assets at beginning	79,504	9,385	88,889	87,213	85,914
Book size	1,561	219	1,780	1,002	1,944
Book quality	(857)	(540)	(1,397)	(22)	(430)
Model updates	(708)	42	(666)	29	(7)
Methodology and policy	–	–	–	–	–
Acquisitions and disposals	–	–	–	–	–
Foreign exchange movements	37	235	272	667	(208)
Credit risk – Risk-weighted assets at end	79,537	9,341	88,878	88,889	87,213
Market risk – Risk-weighted assets at beginning			3,498	3,770	4,072
Movement in risk levels ⁽²⁾			542	(272)	(302)
Model updates			413	–	–
Methodology and policy			–	–	–
Acquisitions and disposals			–	–	–
Market risk – Risk-weighted assets at end			4,453	3,498	3,770
Operational risk – Risk-weighted assets at beginning			13,781	13,375	13,153
Movement in risk levels			366	406	222
Acquisitions and disposals			–	–	–
Operational risk – Risk-weighted assets at end			14,147	13,781	13,375
Risk-weighted assets at end			107,478	106,168	104,358

(1) See the Financial Reporting Method section on pages 4 to 6 for additional information on capital management measures.

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

The table above provides risk-weighted asset 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. During the quarter ended January 31, 2022, the Bank updated the model used for retail lines of credit. During the quarter ended April 30, 2022, the Bank transitioned a retail loan portfolio from the Standardized Approach to the Advanced Internal Rating-Based (AIRB) Approach for measuring credit risk. It also changed the SVaR period of the 2008 Global Financial Crisis (GFC) to the 2020 COVID-19 period at the start of the second quarter and then returned to the 2008 GFC period towards the end of the quarter.

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.

Regulatory Capital and TLAC Ratios

As at April 30, 2022, the Bank's CET1, Tier 1, and Total capital ratios were, respectively, 12.9%, 15.3% and 16.2%, compared to ratios of, respectively, 12.4%, 15.0% and 15.9% as at October 31, 2021. The increase in all capital ratios since October 31, 2021 was essentially due to net income net of dividends and common share issuances under the Stock Option Plan. These factors were partly offset by growth in RWA, the common share repurchases, and the impact of the transitional measures applicable to ECL provisioning, of which the scaling factor decreased from 50% to 25%. As at April 30, 2022, the leverage ratio was 4.4%, stable compared to October 31, 2021. The growth in Tier 1 capital was partly offset by growth in total exposure, which continues to benefit from the temporary measures provided by OSFI with respect to the exclusion of exposures from central bank reserves.

As at April 30, 2022, the Bank's TLAC ratio and TLAC leverage ratio were, respectively, 27.8% and 8.0%, compared with 26.3% and 7.8%, respectively, as at October 31, 2021. The increase in the TLAC ratio was due to the same factors as those provided for the Total capital ratio and the net TLAC instrument issuances during the period. The increase in the TLAC leverage ratio was due to the same factors as those provided for the leverage ratio and by the net TLAC instrument issuances.

During the quarter and six-month period ended April 30, 2022, the Bank was in compliance with all of OSFI's regulatory capital, leverage, and TLAC requirements.

Regulatory Capital⁽¹⁾ and TLAC⁽²⁾

(millions of Canadian dollars)	As at April 30, 2022		As at October 31, 2021	
	Adjusted ⁽³⁾		Adjusted ⁽³⁾	
Capital				
CET1	13,790	13,833	12,866	12,973
Tier 1	16,438	16,481	15,515	15,622
Total	17,399	17,399	16,643	16,643
Risk-weighted assets	107,478	107,478	104,358	104,358
Total exposure	371,977	371,977	351,160	351,160
Capital ratios				
CET1	12.8 %	12.9 %	12.3 %	12.4 %
Tier 1	15.3 %	15.3 %	14.9 %	15.0 %
Total	16.2 %	16.2 %	15.9 %	15.9 %
Leverage ratio	4.4 %	4.4 %	4.4 %	4.4 %
Available TLAC⁽²⁾	29,887	29,887	27,492	27,492
TLAC ratio⁽²⁾	27.8 %	27.8 %	26.3 %	26.3 %
TLAC leverage ratio⁽²⁾	8.0 %	8.0 %	7.8 %	7.8 %

(1) Capital, risk-weighted assets, total exposure, the capital ratios, and the leverage ratio are calculated in accordance with the Basel III rules, as set out in OSFI's *Capital Adequacy Requirements* and *Leverage Requirements* guidelines.

(2) Available TLAC, the TLAC ratio, and the TLAC leverage ratio are calculated in accordance with OSFI's *Total Loss Absorbing Capacity* guideline.

(3) Adjusted amounts are calculated in accordance with the Basel III rules, as set out in OSFI's *Capital Adequacy Requirements* guideline, and exclude the transitional measure for provisioning expected credit losses. For additional information, see the section entitled COVID-19 Pandemic – Key Measures Introduced by the Regulatory Authorities on page 17 of the *2021 Annual Report*.

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.

Risks	Description
COVID-19 Pandemic	The Bank is continuing to monitor the impacts and potential consequences of the COVID-19 pandemic. From its onset, the pandemic has had disruptive and adverse effects in the countries where the Bank does business and, more broadly, on the global economy. COVID-19 has also shed light, and could continue to shed light, on several top and emerging risks to which the Bank is exposed. Despite the exceptional nature of this situation, the risks are being rigorously managed. For additional information, see the section entitled COVID-19 Pandemic – Impact of the COVID-19 Risk Factor on page 16 of the <i>2021 Annual Report</i> .
Emerging risks – Geopolitical risks	On February 24, 2022, the geopolitical situation in Eastern Europe intensified with the invasion of Ukraine by Russia. The war between both countries continues to evolve as military action unfolds and additional sanctions are imposed. The war is increasingly affecting global financial and economic markets and exacerbating current economic conditions, including such issues as rising inflation and the disrupted global supply chain. Given the conflict's broader impact on macroeconomic conditions, the Bank is closely monitoring the impacts and potential consequences on its financial position and that of its clients. The extent to which entities are or will be affected depends largely on the nature and duration of uncertain and unpredictable events, such as new military action, additional sanctions, and reactions to ongoing changes by global financial markets.

Despite the exercise of stringent risk management and the mitigation measures in place, risk cannot be eliminated entirely, and residual risks may occasionally cause significant losses. Certain risks are discussed hereafter. For additional information, see the Risk Management section on pages 69 to 107 of the *2021 Annual Report*. Risk management information is also provided in Note 5 to these 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. Obligors have been affected by the economic environment resulting from COVID-19 and its impact on global and local economies. This exceptional situation has led to significant changes in the overall market environment, including business closures and temporary layoffs. However, certain government measures have been implemented to assist retail and business clients affected by COVID-19.

Regulatory Developments

On December 17, 2021, OSFI confirmed the qualifying rate for uninsured mortgages (i.e., residential mortgages with a down payment of 20% or more) will remain as the greater of the mortgage contract interest rate plus 2% and a minimum floor of 5.25%.

OSFI is well aware that the country's post-pandemic economic recovery must be backed by a strong financial system capable of supporting the Canadian population in the current environment and that real estate market conditions in Canada could heighten the financial risk weighing on lenders. The minimum qualifying interest rate provides an additional level of safety to ensure that borrowers would have the ability to make mortgage payments should circumstances change, e.g., in the case of reduced income or a rise in interest rates.

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

Maximum Credit Risk Exposure Under the Basel Asset Categories⁽¹⁾

(millions of Canadian dollars)						As at April 30, 2022		
	Drawn ⁽²⁾	Undrawn commitments	Repo-style transactions ⁽³⁾	Derivative financial instruments	Other off-balance-sheet items ⁽⁴⁾	Total	Standardized approach ⁽⁵⁾	AIRB approach
Retail								
Residential mortgages	68,946	11,310	–	–	–	80,256	10 %	90 %
Qualifying revolving retail	2,314	6,657	–	–	–	8,971	– %	100 %
Other retail	16,750	2,568	–	–	33	19,351	23 %	77 %
	88,010	20,535	–	–	33	108,578		
Non-retail								
Corporate	76,569	26,979	35,157	248	5,268	144,221	12 %	88 %
Sovereign	53,932	6,829	65,137	333	125	126,356	2 %	98 %
Financial institutions	8,407	126	75,290	4,889	662	89,374	29 %	71 %
	138,908	33,934	175,584	5,470	6,055	359,951		
Trading portfolio	–	–	–	16,906	–	16,906	1 %	99 %
Securitization	4,063	–	–	–	3,956	8,019	78 %	22 %
Total – Gross credit risk	230,981	54,469	175,584	22,376	10,044	493,454	13 %	87 %
Standardized approach⁽⁵⁾	27,381	325	28,349	4,930	4,065	65,050		
AIRB approach	203,600	54,144	147,235	17,446	5,979	428,404		
Total – Gross credit risk	230,981	54,469	175,584	22,376	10,044	493,454	13 %	87 %

(millions of Canadian dollars)						As at October 31, 2021		
	Drawn ⁽²⁾	Undrawn commitments	Repo-style transactions ⁽³⁾	Derivative financial instruments	Other off-balance-sheet items ⁽⁴⁾	Total	Standardized approach ⁽⁵⁾	AIRB approach
Retail								
Residential mortgages	66,791	10,578	–	–	–	77,369	9 %	91 %
Qualifying revolving retail	2,270	6,282	–	–	–	8,552	– %	100 %
Other retail	15,519	2,481	–	–	31	18,031	29 %	71 %
	84,580	19,341	–	–	31	103,952		
Non-retail								
Corporate	70,589	27,783	26,190	161	5,415	130,138	11 %	89 %
Sovereign	55,323	6,217	58,452	294	83	120,369	2 %	98 %
Financial institutions	7,228	126	72,122	2,248	619	82,343	28 %	72 %
	133,140	34,126	156,764	2,703	6,117	332,850		
Trading portfolio	–	–	–	17,010	–	17,010	– %	100 %
Securitization	3,269	–	–	–	4,206	7,475	68 %	32 %
Total – Gross credit risk	220,989	53,467	156,764	19,713	10,354	461,287	13 %	87 %
Standardized approach⁽⁵⁾	25,009	258	26,385	2,203	3,955	57,810		
AIRB approach	195,980	53,209	130,379	17,510	6,399	403,477		
Total – Gross credit risk	220,989	53,467	156,764	19,713	10,354	461,287	13 %	87 %

(1) See the Financial Reporting Method section on pages 4 to 6 for additional information on capital management measures.

(2) Excludes equity securities and certain other assets such as investments in deconsolidated subsidiaries and joint ventures, right-of-use properties and assets, goodwill, deferred tax assets, and intangible assets.

(3) Securities purchased under reverse repurchase agreements and sold under repurchase agreements as well as securities loaned and borrowed.

(4) 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.

(5) Includes exposures to qualifying central counterparties (QCCP).

To meet OSFI's mortgage loan disclosure requirements, additional information has been provided in *Supplementary Financial Information – Second Quarter 2022* and in *Supplementary Regulatory Capital and Pillar 3 Disclosure – Second Quarter 2022*, 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. As a result of the COVID-19 pandemic and its impact on global and local economies, the Bank faces a volatile environment. At its onset, the pandemic sent stock markets into sharp decline and rendered them more volatile, pushed interest rates downwards, triggered a rapid and sudden rise in unemployment, and prompted an economic slowdown. Governments, monetary authorities, and regulators intervened to support the economy and the financial system, notably by deploying fiscal and monetary measures designed to increase liquidity and support incomes. Although the global economy recovered during fiscal 2021, if the COVID-19 pandemic persists, in particular through subsequent waves, its impacts on the global economy could worsen, and the measures in place might not be sufficient over the long term to completely avoid recessionary conditions. Adding to this uncertainty is the Russian-Ukrainian war, which is increasingly affecting global financial and economic markets and exacerbating current economic conditions, including such issues as rising inflation and the disrupted global supply chain.

The following tables provide a breakdown of the Bank's Consolidated Balance Sheet into 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, 2022			
	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	30,423	284	18,567	11,572	Interest rate ⁽³⁾
Securities					
At fair value through profit or loss	78,088	76,395	1,693	–	Interest rate ⁽³⁾ and equity
At fair value through other comprehensive income	9,157	–	9,157	–	Interest rate ⁽³⁾ and equity ⁽⁴⁾
At amortized cost	13,210	–	13,210	–	Interest rate ⁽³⁾
Securities purchased under reverse repurchase agreements and securities borrowed	11,741	–	11,741	–	Interest rate ⁽³⁾⁽⁵⁾
Loans and acceptances, net of allowances	194,029	8,495	185,534	–	Interest rate ⁽³⁾
Derivative financial instruments	22,774	21,770	1,004	–	Interest rate and exchange rate
Defined benefit asset	898	–	898	–	Other
Other	9,465	–	–	9,465	
	369,785	106,944	241,804	21,037	
Liabilities					
Deposits	246,684	13,980	232,704	–	Interest rate ⁽³⁾
Acceptances	6,536	–	6,536	–	Interest rate ⁽³⁾
Obligations related to securities sold short	21,361	21,361	–	–	
Obligations related to securities sold under repurchase agreements and securities loaned	24,292	–	24,292	–	Interest rate ⁽³⁾⁽⁵⁾
Derivative financial instruments	19,809	19,250	559	–	Interest rate and exchange rate
Liabilities related to transferred receivables	24,647	8,883	15,764	–	Interest rate ⁽³⁾
Defined benefit liability	118	–	118	–	Other
Other	5,150	–	76	5,074	Interest rate ⁽³⁾
Subordinated debt	764	–	764	–	Interest rate ⁽³⁾
	349,361	63,474	280,813	5,074	

(1) Trading positions whose risk measures are VaR as well as total SVaR. For additional information, see the table in the pages ahead and in the Market Risk section of the 2021 Annual Report that shows the VaR distribution of the trading portfolios by risk category and their diversification effect as well as total SVaR.

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

(3) For additional information, see the table in the pages ahead and in the Market Risk section of the 2021 Annual Report that shows the VaR distribution of the trading portfolios by risk category and their diversification effect as well as total SVaR and the interest rate sensitivity table.

(4) The fair value of equity securities designated at fair value through other comprehensive income is presented in Notes 2 and 4 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, 2021

	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	33,879	401	16,518	16,960	Interest rate ⁽³⁾
Securities					
At fair value through profit or loss	84,811	82,995	1,816	–	Interest rate ⁽³⁾ and equity ⁽⁴⁾
At fair value through other comprehensive income	9,583	–	9,583	–	Interest rate ⁽³⁾ and equity ⁽⁵⁾
Amortized cost	11,910	–	11,910	–	Interest rate ⁽³⁾
Securities purchased under reverse repurchase agreements and securities borrowed	7,516	–	7,516	–	Interest rate ⁽³⁾⁽⁶⁾
Loans and acceptances, net of allowances	182,689	7,827	174,862	–	Interest rate ⁽³⁾
Derivative financial instruments	16,484	16,033	451	–	Interest rate ⁽⁷⁾ and exchange rate ⁽⁷⁾
Defined benefit asset	691	–	691	–	Other ⁽⁸⁾
Other	8,232	–	–	8,232	
	355,795	107,256	223,347	25,192	
Liabilities					
Deposits	240,938	14,215	226,723	–	Interest rate ⁽³⁾
Acceptances	6,836	–	6,836	–	Interest rate ⁽³⁾
Obligations related to securities sold short	20,266	20,266	–	–	
Obligations related to securities sold under repurchase agreements and securities loaned	17,293	–	17,293	–	Interest rate ⁽³⁾⁽⁶⁾
Derivative financial instruments	19,367	18,999	368	–	Interest rate ⁽⁷⁾ and exchange rate ⁽⁷⁾
Liabilities related to transferred receivables	25,170	9,058	16,112	–	Interest rate ⁽³⁾
Defined benefit liability	143	–	143	–	Other ⁽⁸⁾
Other	6,158	–	113	6,045	Interest rate ⁽³⁾
Subordinated debt	768	–	768	–	Interest rate ⁽³⁾
	336,939	62,538	268,356	6,045	

- (1) Trading positions whose risk measures are VaR as well as total SVaR. For additional information, see the table on the following page and in the Market Risk section of the *2021 Annual Report* that shows the VaR distribution of the trading portfolios by risk category and their diversification effect as well as total SVaR.
- (2) Non-trading positions that use other risk measures.
- (3) For additional information, see the table on the next page and in the Market Risk section of the *2021 Annual Report* that shows the VaR distribution of the trading portfolios by risk category and their diversification effect as well as total SVaR and the interest rate sensitivity table.
- (4) For additional information, see Note 6 to the audited annual consolidated financial statements for the year ended October 31, 2021.
- (5) The fair value of equity securities designated at fair value through other comprehensive income is presented in Notes 2 and 4 to these 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, 2021.
- (8) For additional information, see Note 23 to the audited annual consolidated financial statements for the year ended October 31, 2021.

Trading Activities

The table below shows the VaR distribution of trading portfolios by risk category and their diversification effect as well as the total 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 and SVaR of Trading Portfolios⁽¹⁾⁽²⁾

(millions of Canadian dollars)					Quarter ended				Six months ended	
	April 30, 2022				January 31, 2022		April 30, 2021		April 30, 2022	April 30, 2021
	Low	High	Average	Period end	Average	Period end	Average	Period end	Average	Average
Interest rate	(3.9)	(8.4)	(4.8)	(4.6)	(7.2)	(11.3)	(7.7)	(7.7)	(6.0)	(7.5)
Exchange rate	(0.7)	(2.8)	(1.5)	(1.5)	(1.6)	(0.9)	(0.9)	(0.4)	(1.5)	(0.9)
Equity	(5.0)	(9.1)	(6.9)	(8.5)	(6.2)	(6.6)	(5.7)	(6.0)	(6.5)	(5.9)
Commodity	(0.5)	(1.6)	(0.9)	(0.8)	(0.8)	(0.6)	(0.8)	(0.9)	(0.8)	(0.8)
Diversification effect ⁽³⁾	n.m.	n.m.	6.6	6.7	9.1	12.3	7.7	6.2	7.7	7.6
Total trading VaR	(6.1)	(10.2)	(7.5)	(8.7)	(6.7)	(7.1)	(7.4)	(8.8)	(7.1)	(7.5)
Total trading SVaR	(7.0)	(21.3)	(12.7)	(18.5)	(9.1)	(8.1)	(16.0)	(13.0)	(10.9)	(15.9)

n.m. Computation of a diversification 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) See the Glossary section on pages 45 to 48 for details on the composition of these measures.

(2) Amounts are presented on a pre-tax basis and represent one-day VaR and SVaR using a 99% confidence level.

(3) The total trading VaR is less than the sum of the individual risk factor VaR results due to the diversification effect.

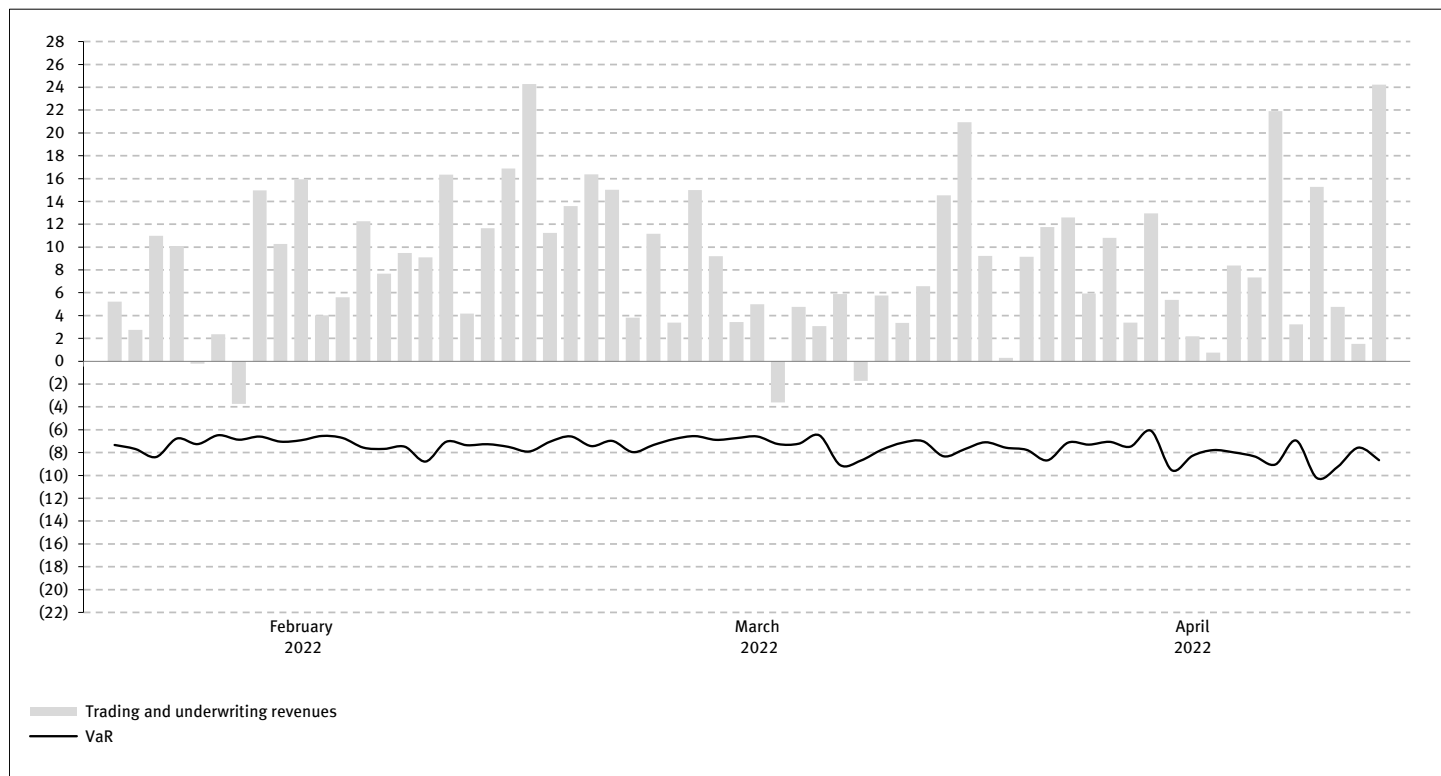
Between the first quarter and second quarter of 2022, the average total trading VaR increased from \$6.7 million to \$7.5 million and the average total trading SVaR increased from \$9.1 million to \$12.7 million. These increases were mainly driven by an increase in equity risk and a decrease in the diversification effect. For the total trading VaR, the increase was partly offset by a reduction in interest rate volatility as the most volatile period of the COVID-19 crisis dropped out of the two-year VaR window.

Daily Trading and Underwriting Revenues

The following table shows daily trading and underwriting revenues as well as VaR. During the quarter ended April 30, 2022, daily trading and underwriting revenues were positive 94% of the days. Three trading days were marked by daily trading and underwriting net losses of more than \$1 million. Neither of these losses exceeded the VaR.

Quarter Ended April 30, 2022

(millions of Canadian dollars)



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

The following table presents the potential before-tax impact of an immediate and sustained 100-basis-point increase or of an immediate and sustained 100-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. As at October 31, 2021, in the context of low interest rates, the Bank believed that a sensitivity analysis reflecting an immediate and sustained 25-basis-point decrease in interest rates also provided relevant information.

(millions of Canadian dollars)	As at April 30, 2022			As at October 31, 2021		
	Canadian dollar	Other currencies	Total	Canadian dollar	Other currencies	Total
Impact on equity						
100-basis-point increase in the interest rate	(259)	2	(257)	(277)	39	(238)
100-basis-point decrease in the interest rate	265	6	271	253	(34)	219
25-basis-point decrease in the interest rate	66	1	67	67	(9)	58
Impact on net interest income						
100-basis-point increase in the interest rate	123	10	133	91	17	108
100-basis-point decrease in the interest rate	(146)	(9)	(155)	(67)	(17)	(84)
25-basis-point decrease in the interest rate	(37)	(2)	(39)	(32)	(4)	(36)

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 risks arise when sources of funds become insufficient to meet scheduled payments under the Bank's commitments.

Liquidity risk stems from mismatched cash flows related to assets and liabilities as well as the characteristics of certain products such as credit commitments and non-fixed-term deposits.

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, but the Bank's sound management of liquidity and funding risk is helping it to maintain an optimal balance between its sources of cash and anticipated payments.

Regulatory Developments

The Bank continues to closely monitor regulatory developments and participates actively in various consultative processes. For additional information about the regulatory context as at October 31, 2021, refer to page 94 of the Risk Management section in the *2021 Annual Report* as well as to the section entitled COVID-19 Pandemic – Key Measures Introduced by the Regulatory Authorities on pages 17 and 18 of the *2021 Annual Report*. Since November 1, 2021, the below-described regulatory developments should also be considered.

On January 31, 2022, OSFI published a final version of the liquidity rules, which reflects the most recent Basel III reforms and, on February 16, 2022, OSFI published the corresponding changes to the regulatory return, i.e., the Net Cumulative Cash Flow (NCCF).

On March 31, 2022, OSFI published, for consultation purposes, a draft guideline entitled *Assurance on Capital, Leverage and Liquidity Returns*. OSFI relies largely on the regulatory returns produced by financial institutions when assessing their safety and soundness. The purpose of this draft guideline is to better inform auditors and institutions on the work to be performed on regulatory returns in order to clarify and align OSFI's assurance expectations across all financial institutions. In particular, the draft guideline addresses the assurance that must be provided by an external audit, attestation by senior management, the assurance that must be provided by an internal audit, and the proposed effective dates. The Bank is actively participating in this consultation, comments for which are due by May 31, 2022.

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 or U.S. dollars. Moreover, all assets that can be quickly monetized are considered liquid assets. The Bank's liquidity reserves do not factor in the availability of the emergency liquidity facilities of central banks. The following tables provide information on the Bank's encumbered and unencumbered assets.

Liquid Asset Portfolio⁽¹⁾

(millions of Canadian dollars)	As at April 30, 2022					As at October 31, 2021
	Bank-owned liquid assets ⁽²⁾	Liquid assets received ⁽³⁾	Total liquid assets	Encumbered liquid assets ⁽⁴⁾	Unencumbered liquid assets	Unencumbered liquid assets
Cash and deposits with financial institutions	30,423	–	30,423	8,313	22,110	27,098
Securities						
Issued or guaranteed by the Canadian government, U.S. Treasury, other U.S. agencies and other foreign governments	30,999	27,918	58,917	36,537	22,380	29,002
Issued or guaranteed by Canadian provincial and municipal governments	12,177	5,637	17,814	11,270	6,544	4,678
Other debt securities	9,119	2,264	11,383	2,210	9,173	7,201
Equity securities	48,160	44,159	92,319	72,136	20,183	26,824
Loans						
Securities backed by insured residential mortgages	10,921	–	10,921	6,349	4,572	3,545
As at April 30, 2022	141,799	79,978	221,777	136,815	84,962	
As at October 31, 2021	149,431	74,070	223,501	125,153		98,348

(millions of Canadian dollars)	As at April 30, 2022		As at October 31, 2021
Unencumbered liquid assets by entity			
National Bank (parent)	47,846		62,438
Domestic subsidiaries	13,780		12,471
Foreign subsidiaries and branches	23,336		23,439
	84,962		98,348

(millions of Canadian dollars)	As at April 30, 2022		As at October 31, 2021
Unencumbered liquid assets by currency			
Canadian dollar	45,056		47,293
U.S. dollar	23,638		40,999
Other currencies	16,268		10,056
	84,962		98,348

Liquid Asset Portfolio⁽¹⁾ – Average⁽⁵⁾

(millions of Canadian dollars)	Quarter ended					Quarter ended
	Bank-owned liquid assets ⁽²⁾	Liquid assets received ⁽³⁾	Total liquid assets	Encumbered liquid assets ⁽⁴⁾	Unencumbered liquid assets	Unencumbered liquid assets
Cash and deposits with financial institutions	38,729	–	38,729	8,270	30,459	30,479
Securities						
Issued or guaranteed by the Canadian government, U.S. Treasury, other U.S. agencies and other foreign governments	31,376	31,376	62,752	39,382	23,370	24,298
Issued or guaranteed by Canadian provincial and municipal governments	12,306	6,371	18,677	12,874	5,803	5,758
Other debt securities	9,125	2,368	11,493	2,482	9,011	7,170
Equity securities	53,681	42,574	96,255	75,178	21,077	31,242
Loans						
Securities backed by insured residential mortgages	11,164	–	11,164	6,678	4,486	4,008
	156,381	82,689	239,070	144,864	94,206	102,955

(1) See the Financial Reporting Method section on pages 4 to 6 for additional information on capital management measures.

(2) Bank-owned liquid assets include assets for which there are no legal or geographic restrictions.

(3) Securities received as collateral with respect to securities financing and derivative transactions and securities purchased under reverse repurchase agreements and securities borrowed.

(4) 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.

(5) 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⁽¹⁾

(millions of Canadian dollars)					As at April 30, 2022	
	Encumbered assets ⁽²⁾		Unencumbered assets		Total	Encumbered assets as a % of total assets
	Pledged as collateral	Other ⁽³⁾	Available as collateral	Other ⁽⁴⁾		
Cash and deposits with financial institutions	337	7,976	22,110	–	30,423	2.2
Securities	42,175	–	58,280	–	100,455	11.4
Securities purchased under reverse repurchase agreements and securities borrowed	–	11,741	–	–	11,741	3.2
Loans and acceptances, net of allowances	37,971	–	4,572	151,486	194,029	10.3
Derivative financial instruments	–	–	–	22,774	22,774	–
Investments in associates and joint ventures	–	–	–	180	180	–
Premises and equipment	–	–	–	1,318	1,318	–
Goodwill	–	–	–	1,510	1,510	–
Intangible assets	–	–	–	1,556	1,556	–
Other assets	–	–	–	5,799	5,799	–
	80,483	19,717	84,962	184,623	369,785	27.1

(millions of Canadian dollars)					As at October 31, 2021	
	Encumbered assets ⁽²⁾		Unencumbered assets		Total	Encumbered assets as a % of total assets
	Pledged as collateral	Other ⁽³⁾	Available as collateral	Other ⁽⁴⁾		
Cash and deposits with financial institutions	275	6,506	27,098	–	33,879	1.9
Securities	38,599	–	67,705	–	106,304	10.9
Securities purchased under reverse repurchase agreements and securities borrowed	–	7,516	–	–	7,516	2.1
Loans and acceptances, net of allowances	37,307	–	3,545	141,837	182,689	10.5
Derivative financial instruments	–	–	–	16,484	16,484	–
Investments in associates and joint ventures	–	–	–	225	225	–
Premises and equipment	–	–	–	1,216	1,216	–
Goodwill	–	–	–	1,504	1,504	–
Intangible assets	–	–	–	1,510	1,510	–
Other assets	–	–	–	4,468	4,468	–
	76,181	14,022	98,348	167,244	355,795	25.4

(1) See the Financial Reporting Method section on pages 4 to 6 for additional information on capital management measures.

(2) 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.

(3) 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.

(4) 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

The Liquidity Coverage Ratio (LCR) was introduced primarily to ensure that banks could withstand periods of severe short-term stress. LCR is calculated by dividing the total amount of high-quality liquid assets (HQLA) by the total amount of net cash outflows. 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 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's *Liquidity Adequacy Requirements* guideline.

The following table provides average LCR data calculated using the daily figures in the quarter. For the quarter ended April 30, 2022, the Bank's average LCR was 145%, well above the 100% regulatory requirement and demonstrating the Bank's solid liquidity in a short-term position.

LCR Disclosure Requirements⁽¹⁾⁽²⁾

(millions of Canadian dollars)

	April 30, 2022		Quarter ended
	Total unweighted value ⁽³⁾ (average)	Total weighted value ⁽⁴⁾ (average)	January 31, 2022 Total weighted value ⁽⁴⁾ (average)
High-quality liquid assets (HQLA)			
Total HQLA	n.a.	72,197	75,412
Cash outflows			
Retail deposits and deposits from small business customers, of which:	64,108	5,190	5,132
Stable deposits	29,266	878	839
Less stable deposits	34,842	4,312	4,293
Unsecured wholesale funding, of which:	102,776	57,418	56,848
Operational deposits (all counterparties) and deposits in networks of cooperative banks	21,476	5,207	5,537
Non-operational deposits (all counterparties)	70,473	41,384	42,223
Unsecured debt	10,827	10,827	9,088
Secured wholesale funding	n.a.	16,004	17,679
Additional requirements, of which:	49,489	11,653	12,664
Outflows related to derivative exposures and other collateral requirements	13,216	5,347	5,666
Outflows related to loss of funding on secured debt securities	1,141	1,141	1,592
Backstop liquidity and credit enhancement facilities and commitments to extend credit	35,132	5,165	5,406
Other contractual commitments to extend credit	1,911	1,093	980
Other contingent commitments to extend credit	116,871	1,710	1,706
Total cash outflows	n.a.	93,068	95,009
Cash inflows			
Secured lending (e.g., reverse repos)	99,915	18,042	17,060
Inflows from fully performing exposures	9,140	5,970	6,643
Other cash inflows	19,125	19,125	20,191
Total cash inflows	128,180	43,137	43,894
		Total adjusted value ⁽⁵⁾	Total adjusted value ⁽⁵⁾
Total HQLA		72,197	75,412
Total net cash outflows		49,931	51,115
Liquidity coverage ratio (%)⁽⁶⁾		145 %	149 %

n.a. Not applicable

(1) See the Financial Reporting Method section on pages 4 to 6 for additional information on capital management measures.

(2) OSFI prescribed a table format in order to standardize disclosure throughout the banking industry.

(3) Unweighted values are calculated as outstanding balances maturing or callable within 30 days (for inflows and outflows).

(4) Weighted values are calculated after the application of respective haircuts (for HQLA) or inflow and outflow rates.

(5) Total adjusted values are calculated after the application of both haircuts and inflow and outflow rates and any applicable caps.

(6) The data in this table is calculated using averages of the daily figures in the quarter.

As at April 30, 2022, Level 1 liquid assets represented 88% 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, 2022 and the preceding quarter were a result of normal business operations. The Bank's liquid asset buffer is well in excess of its total net cash outflows.

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

Net Stable Funding Ratio

The BCBS has developed the Net Stable Funding Ratio (NSFR) to promote a more resilient banking sector. The NSFR requires institutions to maintain a stable funding profile in relation to the composition of their assets and off-balance-sheet activities. A viable funding structure is intended to reduce the likelihood that disruptions to an institution's regular sources of funding will erode its liquidity position in a way that would increase the risk of its failure and potentially lead to broader systemic stress. NSFR is calculated by dividing available stable funding by required stable funding. OSFI has been requiring Canadian banks to maintain a minimum NSFR of 100%.

The following table provides the available stable funding and required stable funding in accordance with OSFI's *Liquidity Adequacy Requirements* guideline. As at April 30, 2022, the Bank's NSFR was 114%, well above the 100% regulatory requirement and demonstrating the Bank's solid liquidity in a long-term position.

NSFR Disclosure Requirements⁽¹⁾⁽²⁾

(millions of Canadian dollars)	As at April 30, 2022				As at January 31, 2022	
	Unweighted value by residual maturity				Weighted value ⁽³⁾	Weighted value ⁽³⁾
	No maturity	6 months or less	Over 6 months to 1 year	Over 1 year		
Available Stable Funding (ASF) Items						
Capital:	20,424	–	–	764	21,188	20,415
Regulatory capital	20,424	–	–	764	21,188	20,415
Other capital instruments	–	–	–	–	–	–
Retail deposits and deposits from small business customers:	57,521	8,147	3,726	17,253	80,440	80,063
Stable deposits	27,086	3,246	1,413	7,154	37,311	36,181
Less stable deposits	30,435	4,901	2,313	10,099	43,129	43,882
Wholesale funding:	66,570	68,916	9,806	39,619	89,286	85,557
Operational deposits	23,895	–	–	–	11,947	10,644
Other wholesale funding	42,675	68,916	9,806	39,619	77,339	74,913
Liabilities with matching interdependent assets ⁽⁴⁾	–	1,903	2,524	20,143	–	–
Other liabilities ⁽⁵⁾ :	24,690	16,220			764	764
NSFR derivative liabilities ⁽⁵⁾	n.a.	13,531			n.a.	n.a.
All other liabilities and equity not included in the above categories	24,690	1,041	269	1,379	764	764
Total ASF	n.a.	n.a.	n.a.	n.a.	191,678	186,799
Required Stable Funding (RSF) Items						
Total NSFR high-quality liquid assets (HQLA)	n.a.	n.a.	n.a.	n.a.	6,584	7,246
Deposits held at other financial institutions for operational purposes	–	–	–	–	–	–
Performing loans and securities:	34,623	57,487	21,658	108,608	135,981	130,782
Performing loans to financial institutions secured by Level 1 HQLA	517	113	–	9	41	168
Performing loans to financial institutions secured by non-Level-1 HQLA and unsecured performing loans to financial institutions	3,719	28,650	1,255	811	5,052	6,063
Performing loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, central banks and PSEs, of which:	9,587	24,042	13,044	47,495	65,338	62,622
With a risk weight of less than or equal to 35% under the Basel II standardized approach for credit risk	517	2,113	366	298	1,769	1,666
Performing residential mortgages, of which:	9,240	4,625	4,709	55,684	50,448	48,544
With a risk weight of less than or equal to 35% under the Basel II standardized approach for credit risk	9,240	4,625	4,709	55,684	50,448	48,544
Securities that are not in default and do not qualify as HQLA, including exchange-traded equities	11,560	57	2,650	4,609	15,102	13,385
Assets with matching interdependent liabilities ⁽⁴⁾	–	1,903	2,524	20,143	–	–
Other assets ⁽⁵⁾ :	3,052	53,153			21,383	17,530
Physical traded commodities, including gold	338	n.a.	n.a.	n.a.	338	279
Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs ⁽⁵⁾	n.a.	9,503			8,078	7,264
NSFR derivative assets ⁽⁵⁾	n.a.	16,309			2,778	902
NSFR derivative liabilities before deduction of the variation margin posted ⁽⁵⁾	n.a.	19,543			977	722
All other assets not included in the above categories	2,714	6,632	185	981	9,212	8,363
Off-balance-sheet items ⁽⁵⁾	n.a.	96,150			3,575	3,631
Total RSF	n.a.	n.a.	n.a.	n.a.	167,523	159,189
Net Stable Funding Ratio (%)	n.a.	n.a.	n.a.	n.a.	114 %	117 %

n.a. Not applicable

(1) See the Financial Reporting Method section on pages 4 to 6 for additional information on capital management measures.

(2) OSFI prescribed a table format in order to standardize disclosure throughout the banking industry.

(3) Weighted values are calculated after application of the weightings set out in OSFI's *Liquidity Adequacy Requirements* guideline.

(4) As per OSFI's specifications, liabilities arising from transactions involving the Canada Mortgage Bond program and their corresponding encumbered mortgages are given ASF and RSF weights of 0%, respectively.

(5) As per OSFI's specifications, there is no need to differentiate by maturities.

The NSFR represents the amount of ASF relative to the amount of RSF. ASF is defined as the portion of capital and liabilities expected to be reliable over the time horizon considered by the NSFR, which extends to one year. The amount of RSF of a specific institution is a function of the liquidity characteristics and residual maturities of the various assets held by that institution as well as those of its off-balance-sheet exposures. The amounts of available and required stable funding are calibrated to reflect the degree of stability of liabilities and liquidity of assets. The Bank expects some quarter-over-quarter variation between reported NSFRs, and such variation may not be indicative of a long-term trend.

The NSFR 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. On April 29, 2022, DBRS Limited (DBRS) raised the ratings of the Bank and its related entities, including the rating for long-term deposits and for long-term non-bail-inable senior debt to AA from AA(low), and it raised the rating for short-term senior debt to R-1(high) from R-1(mid). DBRS also changed the trends of all the ratings to "Stable" from "Positive." This change reflects DBRS's recognition of the Bank's solid performance in recent years, notably its expanded footprint into targeted markets and niches throughout Canada, in particular in the Wealth Management and Financial Markets segments, as well as the greater contribution by the Personal and Commercial segment to the Bank's net income.

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, 2022						
	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⁾	492	–	6	8	506	–	–	506
Certificates of deposit and commercial paper ⁽³⁾	2,688	5,568	5,408	1,740	15,404	–	–	15,404
Senior unsecured medium-term notes ⁽⁴⁾⁽⁵⁾	178	1,596	1,187	2,340	5,301	2,849	7,376	15,526
Senior unsecured structured notes	–	–	–	304	304	66	2,856	3,226
Covered bonds and asset-backed securities								
Mortgage securitization	–	1,343	425	2,570	4,338	5,242	15,067	24,647
Covered bonds	–	1,284	–	–	1,284	3,044	6,229	10,557
Securitization of credit card receivables	–	–	–	–	–	28	48	76
Subordinated liabilities ⁽⁶⁾	–	–	–	–	–	–	764	764
	3,358	9,791	7,026	6,962	27,137	11,229	32,340	70,706
Secured funding	–	2,627	425	2,570	5,622	8,314	21,344	35,280
Unsecured funding	3,358	7,164	6,601	4,392	21,515	2,915	10,996	35,426
	3,358	9,791	7,026	6,962	27,137	11,229	32,340	70,706
As at October 31, 2021	2,643	8,872	9,802	7,390	28,707	10,400	29,331	68,438

- (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) Includes deposits subject to bank recapitalization (bail-in) conversion regulations.
(6) 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 in credit rating. 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, 2022	
		One-notch downgrade	Three-notch downgrade
Derivatives ⁽¹⁾		1	51

- (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, 2022 with comparative figures as at October 31, 2021. 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 when assessing liquid assets or 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 for premises as well as under 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, 2022								
	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	9,747	128	437	250	230	1	–	–	19,630	30,423
Securities										
At fair value through profit or loss	1,298	3,969	1,231	1,778	3,398	3,665	6,430	8,733	47,586	78,088
At fair value through other comprehensive income	4	643	55	77	15	374	4,836	2,579	574	9,157
At amortized cost	3	352	660	276	1,774	1,970	7,246	929	–	13,210
	1,305	4,964	1,946	2,131	5,187	6,009	18,512	12,241	48,160	100,455
Securities purchased under reverse repurchase agreements and securities borrowed	4,730	1,223	642	385	–	642	–	–	4,119	11,741
Loans⁽¹⁾										
Residential mortgage	1,149	1,228	2,020	1,872	1,920	8,263	52,070	6,833	580	75,935
Personal	336	435	757	709	853	3,530	17,440	4,928	14,527	43,515
Credit card									2,252	2,252
Business and government	21,105	4,990	4,128	3,892	2,247	6,380	9,705	3,119	11,140	66,706
Customers' liability under acceptances	5,694	828	7	7	–	–	–	–	–	6,536
Allowances for credit losses									(915)	(915)
	28,284	7,481	6,912	6,480	5,020	18,173	79,215	14,880	27,584	194,029
Other										
Derivative financial instruments	4,994	3,534	1,818	3,547	954	1,661	3,752	2,514	–	22,774
Investments in associates and joint ventures									180	180
Premises and equipment									1,318	1,318
Goodwill									1,510	1,510
Intangible assets									1,556	1,556
Other assets ⁽¹⁾	2,341	106	153	461	569	457	82	(107)	1,737	5,799
	7,335	3,640	1,971	4,008	1,523	2,118	3,834	2,407	6,301	33,137
	51,401	17,436	11,908	13,254	11,960	26,943	101,561	29,528	105,794	369,785

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

(millions of Canadian dollars)										As at April 30, 2022
	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	1,685	1,199	1,814	1,931	2,627	8,346	6,550	4,380	43,294	71,826
Business and government	23,771	12,480	9,099	3,425	3,418	6,642	13,072	4,351	93,444	169,702
Deposit-taking institutions	1,114	527	23	29	28	–	5	34	3,396	5,156
	26,570	14,206	10,936	5,385	6,073	14,988	19,627	8,765	140,134	246,684
Other										
Acceptances	5,694	828	7	7	–	–	–	–	–	6,536
Obligations related to securities sold short ⁽³⁾	139	521	316	94	59	4,514	4,092	5,282	6,344	21,361
Obligations related to repurchase agreements and securities loaned	11,340	3,032	1,798	3,226	–	–	–	–	4,896	24,292
Derivative financial instruments	4,013	2,813	1,294	1,258	952	1,561	5,152	2,766	–	19,809
Liabilities related to transferred receivables ⁽⁴⁾	–	1,343	425	2,154	416	5,242	10,156	4,911	–	24,647
Securitization – Credit card ⁽⁵⁾	–	–	–	–	–	28	48	–	–	76
Lease liabilities ⁽⁵⁾	7	15	23	23	22	92	222	168	–	572
Other liabilities – Other items ⁽¹⁾⁽⁵⁾	757	47	50	16	80	54	20	77	3,519	4,620
	21,950	8,599	3,913	6,778	1,529	11,491	19,690	13,204	14,759	101,913
Subordinated debt	–	–	–	–	–	–	–	764	–	764
Equity									20,424	20,424
	48,520	22,805	14,849	12,163	7,602	26,479	39,317	22,733	175,317	369,785
Off-balance-sheet commitments										
Letters of guarantee and documentary letters of credit	53	686	1,172	2,358	979	321	109	–	–	5,678
Credit card receivables ⁽⁶⁾									9,266	9,266
Backstop liquidity and credit enhancement facilities ⁽⁷⁾	15	–	–	15	5,552	–	–	–	4,531	10,113
Commitments to extend credit ⁽⁸⁾	2,459	10,452	6,616	5,606	3,107	3,495	3,297	49	43,734	78,815
Obligations related to:										
Lease commitments ⁽⁹⁾	1	1	1	1	1	2	4	–	–	11
Other contracts ⁽¹⁰⁾	49	66	50	50	64	106	18	–	117	520

(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 \$5.6 billion.

(8) These amounts include \$43.2 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 \$0.2 billion in contractual commitments related to the head office building under construction.

(millions of Canadian dollars)

As at October 31, 2021

	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	7,510	334	374	146	368	–	–	–	25,147	33,879
Securities										
At fair value through profit or loss	1,946	1,929	1,061	702	792	3,037	6,454	9,410	59,480	84,811
At fair value through other comprehensive income	1	–	1	624	63	227	4,867	3,183	617	9,583
At amortized cost	1	181	213	425	804	3,589	5,865	832	–	11,910
	1,948	2,110	1,275	1,751	1,659	6,853	17,186	13,425	60,097	106,304
Securities purchased under reverse repurchase agreements and securities borrowed	1,113	1,199	59	–	371	619	–	–	4,155	7,516
Loans⁽¹⁾										
Residential mortgage	702	965	1,581	2,587	2,320	8,850	48,455	6,504	578	72,542
Personal	214	315	512	877	843	3,527	16,056	4,308	14,401	41,053
Credit card									2,150	2,150
Business and government	16,842	3,986	2,614	3,508	3,253	6,290	10,180	3,605	10,828	61,106
Customers' liability under acceptances	6,200	618	18	–	–	–	–	–	–	6,836
Allowances for credit losses									(998)	(998)
	23,958	5,884	4,725	6,972	6,416	18,667	74,691	14,417	26,959	182,689
Other										
Derivative financial instruments	1,868	3,678	1,019	2,190	823	1,865	2,491	2,550	–	16,484
Investments in associates and joint ventures									225	225
Premises and equipment									1,216	1,216
Goodwill									1,504	1,504
Intangible assets									1,510	1,510
Other assets ⁽¹⁾	1,829	137	148	129	56	727	88	17	1,337	4,468
	3,697	3,815	1,167	2,319	879	2,592	2,579	2,567	5,792	25,407
	38,226	13,342	7,600	11,188	9,693	28,731	94,456	30,409	122,150	355,795

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

(millions of Canadian dollars)

As at October 31, 2021

	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	1,396	3,433	4,596	2,194	1,945	4,157	6,468	4,914	40,973	70,076
Business and government	24,814	12,796	10,782	5,785	2,691	5,453	10,054	4,765	90,730	167,870
Deposit-taking institutions	1,011	128	38	66	23	1	–	36	1,689	2,992
	27,221	16,357	15,416	8,045	4,659	9,611	16,522	9,715	133,392	240,938
Other										
Acceptances	6,200	618	18	–	–	–	–	–	–	6,836
Obligations related to securities sold short ⁽³⁾	186	123	182	175	22	3,099	3,743	4,797	7,939	20,266
Obligations related to securities sold under repurchase agreements and securities loaned	7,330	2,668	3,633	246	–	–	–	–	3,416	17,293
Derivative financial instruments	3,048	3,061	1,171	1,921	880	1,485	3,273	4,528	–	19,367
Liabilities related to transferred receivables ⁽⁴⁾	–	1,688	1,523	1,054	411	5,501	10,771	4,222	–	25,170
Securitization – Credit card ⁽⁵⁾	36	–	–	–	–	28	48	–	–	112
Lease liabilities ⁽⁵⁾	7	15	21	22	22	88	214	186	–	575
Other liabilities – Other items ⁽¹⁾⁽⁵⁾	640	477	117	125	100	41	25	75	4,014	5,614
	17,447	8,650	6,665	3,543	1,435	10,242	18,074	13,808	15,369	95,233
Subordinated debt	–	–	–	–	–	–	–	768	–	768
Equity									18,856	18,856
	44,668	25,007	22,081	11,588	6,094	19,853	34,596	24,291	167,617	355,795
Off-balance-sheet commitments										
Letters of guarantee and documentary letters of credit	320	1,561	828	2,092	793	575	74	–	–	6,243
Credit card receivables ⁽⁶⁾									9,081	9,081
Backstop liquidity and credit enhancement facilities ⁽⁷⁾	15	–	4,502	15	–	–	–	–	2,732	7,264
Commitments to extend credit ⁽⁸⁾	2,848	9,139	6,195	6,737	3,872	3,105	3,667	48	42,372	77,983
Obligations related to:										
Lease commitments ⁽⁹⁾	1	1	1	1	1	1	3	3	–	12
Other contracts ⁽¹⁰⁾	54	58	50	48	46	152	19	–	124	551

(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 \$40.8 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.

Risk Disclosures

One of the purposes of the *2021 Annual Report*, the *Report to Shareholders – Second Quarter 2022*, 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.

		2021 Annual Report	Report to Shareholders ⁽¹⁾	Pages Supplementary Regulatory Capital and Pillar 3 Disclosure ⁽¹⁾
General				
1	Location of risk disclosures	13	41	
	Management's Discussion and Analysis	59 to 107, 119, 121 and 122	20 to 40	
	Consolidated Financial Statements	Notes 1, 7, 16, 23 and 29	Notes 5 and 11	
	Supplementary Financial Information			19 to 29 ⁽²⁾
	Supplementary Regulatory Capital and Pillar 3 Disclosure			5 to 48
2	Risk terminology and risk measures	69 to 107		
3	Top and emerging risks	16 to 18, 26 and 73 to 78	8 and 26	
4	New key regulatory ratios	60 to 63, 94 and 98 to 101	20, 21, 31 and 33 to 36	
Risk governance and risk management				
5	Risk management organization, processes and key functions	69 to 88, 94 to 96 and 101		
6	Risk management culture	69 and 70		
7	Key risks by business segment, risk management and risk appetite	68 to 70, 73 and 74		
8	Stress testing	59, 70, 82, 92, 93 and 96		
Capital adequacy and risk-weighted assets (RWA)				
9	Minimum Pillar 1 capital requirements	60 to 63	20 to 22	
10	Reconciliation of the accounting balance sheet to the regulatory balance sheet			7 to 13, 16 and 17
11	Movements in regulatory capital	66	23	
12	Capital planning	59 to 68		
13	RWA by business segment and by risk type	68		6
14	Capital requirements by risk and the RWA calculation method	78 to 82		6
15	Banking book credit risk			6
16	Movements in RWA by risk type	67	24	6
17	Assessment of credit risk model performance	73, 79 to 82 and 87		31
Liquidity				
18	Liquidity management and components of the liquidity buffer	94 to 101	31 to 36	
Funding				
19	Summary of encumbered and unencumbered assets	97 and 98	33	
20	Residual contractual maturities of balance sheet items and off-balance-sheet commitments	221 to 225	37 to 40	
21	Funding strategy and funding sources	101 to 103	36	
Market risk				
22	Linkage of market risk measures to balance sheet	89 and 90	28 and 29	
23	Market risk factors	87 to 93, 210 and 211	28 to 31	
24	VaR: Assumptions, limitations and validation procedures	91		
25	Stress tests, stressed VaR and backtesting	87 to 93		
Credit risk				
26	Credit risk exposures	86 and 172 to 183	27 and 64 to 75	18 to 40 and 19 to 27 ⁽²⁾
27	Policies for identifying impaired loans	83, 84, 146 and 147		
28	Movements in impaired loans and allowances for credit losses	119, 121, 122 and 172 to 183	64 to 75	24 to 26 ⁽²⁾
29	Counterparty credit risk relating to derivatives transactions	83 to 85 and 190 to 193		33 to 40, 28 ⁽²⁾ and 29 ⁽²⁾
30	Credit risk mitigation	81 to 84 and 169		20, 24 and 38 to 48
Other risks				
31	Other risks: Governance, measurement and management	77, 78 and 103 to 107		
32	Publicly known risk events	16 to 18, 26, 103 and 104	8 and 26	

(1) Second quarter 2022.

(2) These pages are included in the document entitled *Supplementary Financial Information – Second Quarter 2022*.

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 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 six-month period ended April 30, 2022 were prepared in accordance with IAS 34 – *Interim Financial Reporting* using the same accounting policies as those described in Note 1 to the audited annual consolidated financial statements for the year ended October 31, 2021.

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 108 to 113 of the *2021 Annual Report*.

COVID-19 Pandemic Considerations

The COVID-19 pandemic continues to evolve, and, given the uncertainty associated with the unprecedented nature of the pandemic, developing reliable estimates and applying judgment continue to be substantially complex. Some of the Bank's accounting policies, such as the measurement of expected credit losses (ECLs), require particularly complex judgment and estimates. See Note 1 to the audited annual consolidated financial statements for the year ended October 31, 2021 for a summary of the most significant estimation processes used to prepare the consolidated financial statements in accordance with IFRS and for the valuation techniques used to determine the carrying values and fair values of assets and liabilities. The uncertainty regarding certain key inputs used in measuring ECLs is described in Note 5 to these unaudited interim condensed consolidated financial statements.

Interest Rate Benchmark Reform

The reform of interest rate benchmarks is a global initiative that is being coordinated and led by central banks and governments around the world, including those in Canada. In August 2020, the IASB finalized its response to the ongoing reform of interbank offered rates (IBOR) and other interest rate benchmarks by issuing amendments to its new and former financial instrument standards, IFRS 9 – *Financial Instruments* (IFRS 9) and IAS 39 – *Financial Instruments: Recognition and Measurement* (IAS 39) as well as to related standard IFRS 7 – *Financial Instruments: Disclosures* (IFRS 7), to IFRS 4 – *Insurance Contracts* (IFRS 4), and to IFRS 16 – *Leases* (IFRS 16). These amendments address how financial statements will be affected once current interest rate benchmarks are replaced with alternative interest rate benchmarks and notably cover amendments to contractual cash flows, hedge accounting, and disclosures. On November 1, 2020, the Bank early adopted the amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4, and IFRS 16. For additional information, see Note 17 and the Accounting Policy Changes section in Note 1 to the audited annual consolidated financial statements for the year ended October 31, 2021.

The Bank has transitioned its LIBOR-related (London Interbank Offered Rates) contracts that involve pound sterling (GBP), the euro (EUR), the Japanese yen (JPY) and the Swiss franc (CHF), for which the cessation or loss of representativeness was December 31, 2021. As for USD LIBOR, the Bank included rate replacement clauses in contracts negotiated during 2021 and, since January 1, 2022, the Bank has no longer been using USD LIBOR in new contracts except in circumstances compliant with regulatory guidance.

The Bank is continuing to monitor all of the developments of this initiative, as it is exposed to several risks, including interest rate risk and operational risk, which arise from non-derivative financial assets, non-derivative financial liabilities, and derivative financial instruments. The project team ensures that risks are mitigated while ensuring a positive experience for its clients. The Bank is taking all necessary steps to identify, measure, and control all risks to ensure a smooth transition to the interest rate benchmark reform. As at April 30, 2022, the project is progressing according to schedule.

Recent Developments

On December 16, 2021, the Bank of Canada announced that a white paper published by the Canadian Alternative Reference Rate (CARR) Working Group was recommending that CDOR (Canadian Dollar Offered Rate) be declared unrepresentative by its administrator, namely, Refinitiv Benchmark Services (UK) Limited (Refinitiv), and also that CDOR cease to exist as of June 30, 2024 (including a recommendation to cease using CDOR on the derivative financial instrument market as of June 30, 2023).

On January 31, 2022, Refinitiv launched a public consultation on the future of CDOR. The consultation ended on March 2, 2022, after which Refinitiv published an update to the consultation on April 14, 2022. On May 16, 2022, Refinitiv published the consultation conclusions and announced that the publication of CDOR would cease as of June 28, 2024.

Following this announcement, the CARR Working Group welcomed Refinitiv's decision and, at the same time, OSFI published its prudential expectations regarding the cessation of CDOR. First, OSFI expects all new derivative contracts (bilateral, cleared, and exchange-traded) and securities (assets and debt liabilities) to transition to alternative reference rates by June 30, 2023, with no new CDOR exposure being recorded after that date, with limited exceptions for risk mitigation requirements. Thereafter, by June 28, 2024, OSFI expects federally regulated financial institutions to have transitioned all loan agreements referencing CDOR to alternative reference rates.

Financial Disclosure

On February 1, 2022, the Bank deployed a new integrated accounting software package, and certain processes that affect internal control over financial reporting were modified. The Bank has assessed the impact of this deployment and has made sure that the key controls impacted and the newly implemented controls are well designed.

During the second quarter of 2022, no changes, except for the above-described change, 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)

	2022				2021		2020		2021	2020
	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Total	Total
Total revenues	2,439	2,466	2,211	2,254	2,238	2,224	2,000	1,968	8,927	7,927
Net income	893	932	776	839	801	761	492	602	3,177	2,083
Earnings per share (\$)										
Basic	2.58	2.68	2.22	2.39	2.28	2.16	1.37	1.67	9.06	5.73
Diluted	2.55	2.65	2.19	2.36	2.25	2.15	1.36	1.66	8.96	5.70
Dividends per common share (\$)	0.87	0.87	0.71	0.71	0.71	0.71	0.71	0.71	2.84	2.84
Return on common shareholders' equity (%)⁽¹⁾	20.6	21.7	18.7	21.3	22.0	21.2	13.7	17.0	20.7	14.9
Total assets	369,785	366,888	355,795	354,040	350,742	343,637	331,625	322,453		
Net impaired loans⁽¹⁾⁽²⁾	293	287	283	312	349	400	465	453		
Per common share (\$)										
Book value ⁽¹⁾	52.81	50.23	47.95	46.00	43.59	41.48	39.97	38.91		
Share price										
High	104.59	105.44	104.32	96.97	89.42	73.81	72.85	65.54		
Low	89.33	94.37	95.00	89.47	72.30	65.54	62.99	51.38		

(1) See the Glossary section on pages 45 to 48 for details on the composition of these measures.

(2) 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.

Glossary

Acceptances

Acceptances and the customers' liability under acceptances constitute a guarantee of payment by a bank and can be traded in the money market. The Bank earns a "stamping fee" for providing this guarantee.

Allowances for credit losses

Allowances for credit losses represent management's unbiased estimate of expected credit losses as at the balance sheet date. These allowances are primarily related to loans and off-balance-sheet items such as loan commitments and financial guarantees.

Assets under administration

Assets in respect of which a financial institution provides administrative services such as custodial services, collection of investment income, settlement of purchase and sale transactions, and record-keeping. Assets under administration are not reported on the balance sheet of the institution offering such services.

Assets under management

Assets managed by a financial institution and that are beneficially owned by clients. Management services are more comprehensive than administrative services and include selecting investments or offering investment advice. Assets under management, which may also be assets under administration, are not reported on the balance sheet of the institution offering such services.

Available TLAC

Available TLAC includes total capital as well as certain senior unsecured debt subject to the federal government's bail-in regulations that satisfy all of the eligibility criteria in OSFI's *Total Loss Absorbing Capacity (TLAC)* guideline.

Average interest-bearing assets

Average interest-bearing assets include interest-bearing deposits with financial institutions and certain cash items, securities, securities purchased under reverse repurchase agreements and securities borrowed, and loans, while excluding other assets. The average is calculated based on the daily balances for the period.

Average interest-bearing assets, non-trading

Average interest-bearing assets, non-trading, include interest-bearing deposits with financial institutions and certain cash items, securities purchased under reverse repurchase agreements and securities borrowed, and loans, while excluding other assets and assets related to trading activities. The average is calculated based on the daily balances for the period.

Average volumes

Average volumes represent the average of the daily balances for the period of the consolidated balance sheet items.

Basic earnings per share

Basic earnings per share – Adjusted

Basic earnings per share is calculated by dividing net income attributable to common shareholders by the weighted average basic number of common shares outstanding. Adjusted basic earnings per share is calculated by dividing adjusted net income attributable to common shareholders by the weighted average basic number of common shares outstanding.

Basis point

Unit of measure equal to one one-hundredth of a percentage point (0.01%).

Book value of a common share

The book value of a common share is calculated by dividing common shareholders' equity by the number of common shares on a given date.

Common Equity Tier 1 (CET1) capital ratio

CET1 capital consists of common shareholders' equity less goodwill, intangible assets, and other capital deductions. The CET1 capital ratio is calculated by dividing Common Equity Tier 1 capital by the corresponding risk-weighted assets.

Compound annual growth rate (CAGR)

CAGR is a rate of growth that shows, for a period exceeding one year, the annual change as though the growth had been constant throughout the period.

Derivative financial instruments

Derivative financial instruments are financial contracts whose value is derived from an underlying interest rate, exchange rate or equity, commodity or credit instrument or index. Examples of derivatives include swaps, options, forward rate agreements, and futures. The notional amount of the derivative is the contract amount used as a reference point to calculate the payments to be exchanged between the two parties, and the notional amount itself is generally not exchanged by the parties.

Diluted earnings per share**Diluted earnings per share – Adjusted**

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. Adjusted diluted earnings per share is calculated by dividing adjusted 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.

Dividend payout ratio**Dividend payout ratio – Adjusted**

The dividend payout ratio represents the dividends on common shares (per share amount) expressed as a percentage of basic earnings per share. The adjusted dividend payout ratio represents the dividends on common shares (per share amount) expressed as a percentage of adjusted basic earnings per share.

Economic capital

Economic capital is the internal measure used by the Bank to determine the capital required for its solvency and to pursue its business operations. Economic capital takes into consideration the credit, market, operational, business and other risks to which the Bank is exposed as well as the risk diversification effect among them and among the business segments. Economic capital thus helps the Bank to determine the capital required to protect itself against such risks and ensure its long-term viability.

Efficiency ratio**Efficiency ratio – Adjusted**

The efficiency ratio represents non-interest expenses expressed as a percentage of total revenues. It measures the efficiency of the Bank's operations. The adjusted efficiency ratio represents adjusted non-interest expenses expressed as a percentage of adjusted total revenues.

Fair value

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

Gross impaired loans as a percentage of total loans and acceptances

This measure represents gross impaired loans expressed as a percentage of the balance of loans and acceptances.

Hedging

The purpose of a hedging transaction is to modify the Bank's exposure to one or more risks by creating an offset between changes in the fair value of, or the cash flows attributable to, the hedged item and the hedging instrument.

Impaired loans

The Bank considers a financial asset, other than a credit card receivable, to be credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred or when contractual payments are 90 days past due. Credit card receivables are considered credit-impaired and are fully written off at the earlier of the following dates: when a notice of bankruptcy is received, a settlement proposal is made, or contractual payments are 180 days past due.

Leverage ratio

The leverage ratio is calculated by dividing Tier 1 capital by total exposure. Total exposure is defined as the sum of on-balance-sheet assets (including derivative financial instrument exposures and securities financing transaction exposures) and off-balance-sheet items.

Liquidity coverage ratio (LCR)

The LCR is a measure designed to ensure that the Bank has sufficient high-quality liquid assets to cover net cash outflows given a severe, 30-day liquidity crisis.

Loans and acceptances

Loans and acceptances represent the sum of loans and of the customers' liability under acceptances.

Loan-to-value ratio

The loan-to-value ratio is calculated according to the total facility amount for residential mortgages and home equity lines of credit divided by the value of the related residential property.

Master netting agreement

Legal agreement between two parties that have multiple derivative contracts with each other and that provides for the net settlement of all contracts through a single payment in the event of default, insolvency, or bankruptcy.

Net impaired loans

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

Net impaired loans as a percentage of total loans and acceptances

This measure represents net impaired loans expressed as a percentage of the balance of loans and acceptances.

Net interest income, non-trading

Net interest income, non-trading, comprises revenues related to financial assets and liabilities associated with non-trading activities, net of interest expenses and interest income related to the financing of these financial assets and liabilities.

Net interest margin

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

Net interest margin, non-trading

Net interest margin, non-trading, is calculated by dividing net interest income related to non-trading activities by average interest-bearing assets excluding the average interest-bearing assets related to trading activities.

Net stable funding ratio (NSFR)

The NSFR ratio is a measure that helps guarantee that the Bank is maintaining a stable funding profile to reduce the risk of funding stress.

Net write-offs as a percentage of average loans and acceptances

This measure represents the net write-offs (net of recoveries) expressed as a percentage of average loans and acceptances.

Office of the Superintendent of Financial Institutions (Canada) (OSFI)

The mandate of OSFI is to regulate and supervise financial institutions and private pension plans subject to federal oversight, to help minimize undue losses to depositors and policyholders and, thereby, to contribute to public confidence in the Canadian financial system.

Operating leverage**Operating leverage – Adjusted**

Operating leverage is the difference between the growth rate for total revenues and the growth rate for non-interest expenses. Adjusted operating leverage is the difference between the growth rate for adjusted total revenues and the growth rate for adjusted non-interest expenses.

Provisioning rate

This measure represents the allowances for credit losses on impaired loans expressed as a percentage of gross impaired loans.

Provisions for credit losses

Amount charged to income necessary to bring the allowances for credit losses to a level deemed appropriate by management and comprised of provisions for credit losses on impaired and non-impaired financial assets.

Provisions for credit losses as a percentage of average loans and acceptances

This measure represents the provisions for credit losses expressed as a percentage of average loans and acceptances.

Provisions for credit losses on impaired loans as a percentage of average loans and acceptances

This measure represents the provisions for credit losses on impaired loans expressed as a percentage of average loans and acceptances.

Return on average assets

Return on average assets represents net income expressed as a percentage of average assets.

Return on common shareholders' equity (ROE)**Return on common shareholders' equity (ROE) – Adjusted**

ROE represents net income attributable to common shareholders expressed as a percentage of average equity attributable to common shareholders. It's a general measure of the Bank's efficiency in using equity. Adjusted ROE represents adjusted net income attributable to common shareholders as a percentage of adjusted average equity attributable to common shareholders.

Risk-weighted assets

Assets are risk-weighted according to the guidelines established by OSFI. Using the Standardized approach, risk factors are applied to the face value of certain assets in order to reflect comparable risk levels. Using the Advanced Internal Ratings-Based (AIRB) approach, risk-weighted assets are derived from the Bank's internal models, which represent the Bank's own assessment of the risks it faces. Off-balance-sheet instruments are converted to balance sheet (or credit) equivalents by adjusting the notional values before applying the appropriate risk-weighting factors.

Securities purchased under reverse repurchase agreements

Securities purchased by the Bank from a client pursuant to an agreement under which the securities will be resold to the same client on a specified date and at a specified price. Such an agreement is a form of short-term collateralized lending.

Securities sold under repurchase agreements

Financial obligations related to securities sold pursuant to an agreement under which the securities will be repurchased on a specified date and at a specified price. Such an agreement is a form of short-term funding.

Stressed VaR (SVaR)

SVaR is a statistical measure of risk that replicates the VaR calculation method but uses, instead of a two-year history of risk factor changes, a 12-month data period corresponding to a continuous period of significant financial stress that is relevant in terms of the Bank's portfolios.

Structured entity

A structured entity is an entity created to accomplish a narrow and well-defined objective and is designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate solely to administrative tasks and the relevant activities are directed by means of contractual arrangements.

Taxable equivalent basis

Taxable equivalent basis is a calculation method that consists in grossing up certain tax-exempt income (particularly dividends) by the amount of income tax that would have otherwise been payable. The Bank uses the taxable equivalent basis to calculate net interest income, non-interest income, and income taxes.

Tier 1 capital ratio

Tier 1 capital ratio consists of Common Equity Tier 1 capital and Additional Tier 1 instruments, namely, qualifying non-cumulative preferred shares and the eligible amount of innovative instruments. Tier 1 capital ratio is calculated by dividing Tier 1 capital, less regulatory adjustments, by the corresponding risk-weighted assets.

TLAC leverage ratio

The TLAC leverage ratio is an independent risk measure that is calculated by dividing available TLAC by total exposure, as set out in OSFI's *Total Loss Absorbing Capacity (TLAC)* guideline.

TLAC ratio

The TLAC ratio is a measure used to assess whether a non-viable Domestic Systemically Important Bank (D-SIB) has sufficient loss-absorbing capacity to support its recapitalization. It is calculated by dividing available TLAC by risk-weighted assets, as set out in OSFI's *Total Loss Absorbing Capacity (TLAC)* guideline.

Total capital ratio

Total capital is the sum of Tier 1 and Tier 2 capital. Tier 2 capital consists of the eligible portion of subordinated debt and certain allowances for credit losses. Total capital ratio is calculated by dividing total capital, less regulatory adjustments, by the corresponding risk-weighted assets.

Total shareholder return (TSR)

TSR represents the average total return on an investment in the Bank's common shares. The return includes changes in share price and assumes that the dividends received were reinvested in additional common shares of the Bank.

Trading activity revenues**Trading activity revenues – Adjusted**

Trading activity revenues consist of the net interest income and the non-interest income related to trading activities. Net interest income comprises dividends related to financial assets and liabilities associated with trading activities, net of interest expenses and interest income related to the financing of these financial assets and liabilities. Non-interest income consists of realized and unrealized gains and losses as well as interest income on securities measured at fair value through profit or loss, income from held-for-trading derivative financial instruments, changes in the fair value of loans at fair value through profit or loss, changes in the fair value of financial instruments designated at fair value through profit or loss, certain commission income, other trading activity revenues, and any applicable transaction costs. Trading activity revenues on a taxable equivalent basis includes adjusted net interest income and adjusted non-interest income related to trading activities.

Value-at-Risk (VaR)

VaR is a statistical measure of risk that is used to quantify market risks across products, types of risks, and aggregate risk on a portfolio basis. VaR is defined as the maximum loss at a specific confidence level over a certain horizon under normal market conditions. The VaR method has the advantage of providing a uniform measurement of financial instrument-related market risks based on a single statistical confidence level and time horizon.

Interim Condensed Consolidated Financial Statements

(unaudited)

Consolidated Balance Sheets	50
Consolidated Statements of Income	51
Consolidated Statements of Comprehensive Income	52
Consolidated Statements of Changes in Equity	54
Consolidated Statements of Cash Flows	55
Notes to the Interim Condensed Consolidated Financial Statements	56

Consolidated Balance Sheets

(unaudited) (millions of Canadian dollars)

	As at April 30, 2022	As at October 31, 2021
Assets		
Cash and deposits with financial institutions	30,423	33,879
Securities (Notes 2, 3 and 4)		
At fair value through profit or loss	78,088	84,811
At fair value through other comprehensive income	9,157	9,583
At amortized cost	13,210	11,910
	100,455	106,304
Securities purchased under reverse repurchase agreements and securities borrowed	11,741	7,516
Loans (Note 5)		
Residential mortgage	75,935	72,542
Personal	43,515	41,053
Credit card	2,252	2,150
Business and government	66,706	61,106
	188,408	176,851
Customers' liability under acceptances	6,536	6,836
Allowances for credit losses	(915)	(998)
	194,029	182,689
Other		
Derivative financial instruments	22,774	16,484
Investments in associates and joint ventures	180	225
Premises and equipment	1,318	1,216
Goodwill	1,510	1,504
Intangible assets	1,556	1,510
Other assets (Note 7)	5,799	4,468
	33,137	25,407
	369,785	355,795
Liabilities and equity		
Deposits (Notes 3 and 8)	246,684	240,938
Other		
Acceptances	6,536	6,836
Obligations related to securities sold short	21,361	20,266
Obligations related to securities sold under repurchase agreements and securities loaned (Note 6)	24,292	17,293
Derivative financial instruments	19,809	19,367
Liabilities related to transferred receivables (Notes 3 and 6)	24,647	25,170
Other liabilities (Note 9)	5,268	6,301
	101,913	95,233
Subordinated debt	764	768
Equity		
Equity attributable to the Bank's shareholders and holders of other equity instruments (Notes 10 and 12)		
Preferred shares and other equity instruments	2,650	2,650
Common shares	3,196	3,160
Contributed surplus	49	47
Retained earnings	14,473	13,028
Accumulated other comprehensive income	54	(32)
	20,422	18,853
Non-controlling interests	2	3
	20,424	18,856
	369,785	355,795

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

Consolidated Statements of Income

(unaudited) (millions of Canadian dollars)

	Quarter ended April 30		Six months ended April 30	
	2022	2021	2022	2021
Interest income				
Loans	1,469	1,325	2,891	2,701
Securities at fair value through profit or loss	319	250	685	547
Securities at fair value through other comprehensive income	31	54	62	96
Securities at amortized cost	52	45	98	90
Deposits with financial institutions	40	20	63	38
	1,911	1,694	3,799	3,472
Interest expense				
Deposits	435	397	835	823
Liabilities related to transferred receivables	105	92	206	178
Subordinated debt	4	4	8	8
Other	54	45	105	100
	598	538	1,154	1,109
Net interest income⁽¹⁾	1,313	1,156	2,645	2,363
Non-interest income				
Underwriting and advisory fees	84	145	162	225
Securities brokerage commissions	59	65	116	132
Mutual fund revenues	147	138	303	270
Investment management and trust service fees	253	216	509	418
Credit fees	119	127	244	258
Card revenues	44	36	91	69
Deposit and payment service charges	73	67	144	132
Trading revenues (losses)	121	71	243	179
Gains (losses) on non-trading securities, net	53	50	107	86
Insurance revenues, net	37	35	84	63
Foreign exchange revenues, other than trading	56	56	108	108
Share in the net income of associates and joint ventures	15	5	20	11
Other	65	71	129	148
	1,126	1,082	2,260	2,099
Total revenues	2,439	2,238	4,905	4,462
Non-interest expenses				
Compensation and employee benefits	808	769	1,625	1,500
Occupancy	76	72	152	151
Technology	226	192	454	392
Communications	16	15	30	28
Professional fees	57	55	120	111
Other	110	96	189	197
	1,293	1,199	2,570	2,379
Income before provisions for credit losses and income taxes	1,146	1,039	2,335	2,083
Provisions for credit losses (Note 5)	3	5	1	86
Income before income taxes	1,143	1,034	2,334	1,997
Income taxes	250	233	509	435
Net income	893	801	1,825	1,562
Net income attributable to				
Preferred shareholders and holders of other equity instruments	25	33	51	66
Common shareholders	869	768	1,775	1,496
Bank shareholders and holders of other equity instruments	894	801	1,826	1,562
Non-controlling interests	(1)	–	(1)	–
	893	801	1,825	1,562
Earnings per share (dollars) (Note 15)				
Basic	2.58	2.28	5.26	4.44
Diluted	2.55	2.25	5.19	4.40
Dividends per common share (dollars) (Note 10)	0.87	0.71	1.74	1.42

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, 2021.

Consolidated Statements of Comprehensive Income

(unaudited) (millions of Canadian dollars)

	Quarter ended April 30		Six months ended April 30	
	2022	2021	2022	2021
Net income	893	801	1,825	1,562
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	48	(159)	164	(335)
Impact of hedging net foreign currency translation gains (losses)	(17)	49	(51)	103
	31	(110)	113	(232)
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	(56)	(11)	(120)	26
Net (gains) losses on debt securities at fair value through other comprehensive income reclassified to net income	23	(17)	44	(27)
Change in allowances for credit losses on debt securities at fair value through other comprehensive income reclassified to net income	–	–	–	(1)
	(33)	(28)	(76)	(2)
Net change in cash flow hedges				
Net gains (losses) on derivative financial instruments designated as cash flow hedges	28	129	34	161
Net (gains) losses on designated derivative financial instruments reclassified to net income	6	6	16	8
	34	135	50	169
Share in the other comprehensive income of associates and joint ventures	(1)	1	(1)	1
Items that will not be subsequently reclassified to net income				
Remeasurements of pension plans and other post-employment benefit plans	76	142	172	274
Net gains (losses) on equity securities designated at fair value through other comprehensive income	(23)	22	(17)	49
Net fair value change attributable to the credit risk on financial liabilities designated at fair value through profit or loss	304	18	325	(66)
	357	182	480	257
Total other comprehensive income, net of income taxes	388	180	566	193
Comprehensive income	1,281	981	2,391	1,755
Comprehensive income attributable to				
Bank shareholders and holders of other equity instruments	1,282	981	2,392	1,768
Non-controlling interests	(1)	–	(1)	(13)
	1,281	981	2,391	1,755

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

Consolidated Statements of Comprehensive Income (cont.)

(unaudited) (millions of Canadian dollars)

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	
	2022	2021	2022	2021
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	–	6	(5)	10
Impact of hedging net foreign currency translation gains (losses)	2	12	(5)	27
	2	18	(10)	37
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	(20)	(4)	(43)	9
Net (gains) losses on debt securities at fair value through other comprehensive income reclassified to net income	8	(6)	16	(10)
Change in allowances for credit losses on debt securities at fair value through other comprehensive income reclassified to net income	–	–	–	–
	(12)	(10)	(27)	(1)
Net change in cash flow hedges				
Net gains (losses) on derivative financial instruments designated as cash flow hedges	10	47	12	58
Net (gains) losses on designated derivative financial instruments reclassified to net income	2	2	5	3
	12	49	17	61
Share in the other comprehensive income of associates and joint ventures	(1)	–	(1)	–
Items that will not be subsequently reclassified to net income				
Remeasurements of pension plans and other post-employment benefit plans	27	51	62	98
Net gains (losses) on equity securities designated at fair value through other comprehensive income	(8)	7	(6)	17
Net fair value change attributable to the credit risk on financial liabilities designated at fair value through profit or loss	108	6	116	(24)
	127	64	172	91
	128	121	151	188

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	
	2022	2021
Preferred shares and other equity instruments at beginning (Note 10)	2,650	2,950
Issuances of preferred shares and other equity instruments	–	500
Preferred shares and other equity instruments at end	2,650	3,450
Common shares at beginning (Note 10)	3,160	3,057
Issuances of common shares pursuant to the Stock Option Plan	52	73
Repurchases of common shares for cancellation	(24)	–
Impact of shares purchased or sold for trading	8	(1)
Common shares at end	3,196	3,129
Contributed surplus at beginning	47	47
Stock option expense (Note 12)	8	5
Stock options exercised	(6)	(9)
Other	–	(1)
Contributed surplus at end	49	42
Retained earnings at beginning	13,028	10,444
Net income attributable to the Bank's shareholders and holders of other equity instruments	1,826	1,562
Dividends on preferred shares and distributions on other equity instruments (Note 10)	(56)	(69)
Dividends on common shares (Note 10)	(587)	(479)
Premium paid on common shares repurchased for cancellation (Note 10)	(221)	–
Issuance expenses for shares and other equity instruments, net of income taxes	–	(4)
Remeasurements of pension plans and other post-employment benefit plans	172	274
Net gains (losses) on equity securities designated at fair value through other comprehensive income	(17)	49
Net fair value change attributable to the credit risk on financial liabilities designated at fair value through profit or loss	325	(66)
Impact of a financial liability resulting from put options written to non-controlling interests	(2)	–
Other	5	(7)
Retained earnings at end	14,473	11,704
Accumulated other comprehensive income at beginning	(32)	(118)
Net foreign currency translation adjustments	113	(219)
Net change in unrealized gains (losses) on debt securities at fair value through other comprehensive income	(76)	(2)
Net change in gains (losses) on cash flow hedges	50	169
Share in the other comprehensive income of associates and joint ventures	(1)	1
Accumulated other comprehensive income at end	54	(169)
Equity attributable to the Bank's shareholders and holders of other equity instruments	20,422	18,156
Non-controlling interests at beginning	3	3
Purchase of the non-controlling interest of the Credigy Ltd. subsidiary	–	10
Net income attributable to non-controlling interests	(1)	–
Other comprehensive income attributable to non-controlling interests	–	(13)
Non-controlling interests at end	2	–
Equity	20,424	18,156

Accumulated Other Comprehensive Income

	As at April 30, 2022	As at April 30, 2021
Accumulated other comprehensive income		
Net foreign currency translation adjustments	(16)	(158)
Net unrealized gains (losses) on debt securities at fair value through other comprehensive income	(5)	99
Net gains (losses) on instruments designated as cash flow hedges	73	(114)
Share in the other comprehensive income of associates and joint ventures	2	4
	54	(169)

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	
	2022	2021
Cash flows from operating activities		
Net income	1,825	1,562
Adjustments for		
Provisions for credit losses	1	86
Amortization of premises and equipment, including right-of-use assets	101	104
Amortization of intangible assets	157	143
Deferred taxes	97	12
Losses (gains) on sales of non-trading securities, net	(107)	(86)
Share in the net income of associates and joint ventures	(20)	(11)
Stock option expense	8	5
Change in operating assets and liabilities		
Securities at fair value through profit or loss	6,723	(8,774)
Securities purchased under reverse repurchase agreements and securities borrowed	(4,225)	3,156
Loans and acceptances, net of securitization	(12,125)	(5,648)
Deposits	5,746	15,442
Obligations related to securities sold short	1,095	2,196
Obligations related to securities sold under repurchase agreements and securities loaned	6,999	(5,080)
Derivative financial instruments, net	(5,848)	1,964
Securitization – Credit cards	(37)	–
Interest and dividends receivable and interest payable	25	(150)
Current tax assets and liabilities	(415)	132
Other items	(1,961)	1,345
	(1,961)	6,398
Cash flows from financing activities		
Issuances of preferred shares and other equity instruments	–	500
Issuances of common shares (including the impact of shares purchased for trading)	54	63
Repurchases of common shares for cancellation	(245)	–
Purchase of the non-controlling interest of the Credigy Ltd. subsidiary	–	(300)
Issuance expenses for shares and other equity instruments	–	(4)
Repayments of lease liabilities	(50)	(47)
Dividends paid on shares and distributions on other equity instruments	(643)	(548)
	(884)	(336)
Cash flows from investing activities		
Net change in investments in associates and joint ventures	119	54
Purchases of non-trading securities	(5,882)	(2,363)
Maturities of non-trading securities	912	1,120
Sales of non-trading securities	3,878	4,321
Net change in premises and equipment, excluding right-of-use assets	(156)	(101)
Net change in intangible assets	(203)	(177)
	(1,332)	2,854
Impact of currency rate movements on cash and cash equivalents	721	(1,100)
Increase (decrease) in cash and cash equivalents	(3,456)	7,816
Cash and cash equivalents at beginning	33,879	29,142
Cash and cash equivalents at end⁽¹⁾	30,423	36,958
Supplementary information about cash flows from operating activities		
Interest paid	1,127	1,196
Interest and dividends received	3,798	3,413
Income taxes paid	786	391

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 \$8.3 billion as at April 30, 2022 (\$6.8 billion as at October 31, 2021) for which there are restrictions and of which \$5.7 billion (\$4.9 billion as at October 31, 2021) represent the balances that the Bank must maintain with central banks, other regulatory agencies, and certain counterparties.

Notes to the Interim Condensed Consolidated Financial Statements

(unaudited) (millions of Canadian dollars)

Note 1	Basis of Presentation	56	Note 9	Other Liabilities	77
Note 2	Fair Value of Financial Instruments	57	Note 10	Share Capital and Other Equity Instruments	78
Note 3	Financial Instruments Designated at Fair Value Through Profit or Loss	62	Note 11	Capital Disclosure	79
Note 4	Securities	63	Note 12	Share-Based Payments	80
Note 5	Loans and Allowances for Credit Losses	64	Note 13	Employee Benefits – Pension Plans and Other Post-Employment Benefits	81
Note 6	Financial Assets Transferred But Not Derecognized	76	Note 14	Income Taxes	81
Note 7	Other Assets	77	Note 15	Earnings Per Share	82
Note 8	Deposits	77	Note 16	Segment Disclosures	82

Note 1 – Basis of Presentation

On May 26, 2022, 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, 2022.

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, 2021. Future accounting policy changes that have not yet come into effect are described in Note 2 to the audited annual consolidated financial statements for the year ended October 31, 2021.

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

COVID-19 Pandemic Considerations

The COVID-19 pandemic continues to evolve, and, given the uncertainty associated with the unprecedented nature of the pandemic, developing reliable estimates and applying judgment continue to be substantially complex. Some of the Bank's accounting policies, such as the measurement of expected credit losses, require particularly complex judgment and estimates. See Note 1 to the audited annual consolidated financial statements for the year ended October 31, 2021 for a summary of the most significant estimation processes used to prepare the consolidated financial statements in accordance with IFRS and for the valuation techniques used to determine the carrying values and fair values of assets and liabilities. The uncertainty regarding certain key inputs used in measuring expected credit losses is described in Note 5 to these consolidated financial statements.

Note 2 – 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, 2022								
	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	Carrying value and fair value	Carrying value	Fair value	
					Financial instruments at amortized cost, net	Financial instruments at amortized cost, net		Total carrying value Total fair value
Financial assets								
Cash and deposits with financial institutions	–	–	–	–	30,423	30,423		30,423 30,423
Securities	76,924	1,164	8,583	574	13,210	12,856		100,455 100,101
Securities purchased under reverse repurchase agreements and securities borrowed	–	–	–	–	11,741	11,741		11,741 11,741
Loans and acceptances, net of allowances	9,300	–	–	–	184,729	180,690		194,029 189,990
Other								
Derivative financial instruments	22,774	–	–	–	–	–		22,774 22,774
Other assets	76	–	–	–	1,997	1,997		2,073 2,073
Financial liabilities								
Deposits ⁽¹⁾	–	13,735			232,949	232,173		246,684 245,908
Other								
Acceptances	–	–			6,536	6,536		6,536 6,536
Obligations related to securities sold short	21,361	–			–	–		21,361 21,361
Obligations related to securities sold under repurchase agreements and securities loaned	–	–			24,292	24,292		24,292 24,292
Derivative financial instruments	19,809	–			–	–		19,809 19,809
Liabilities related to transferred receivables	–	10,324			14,323	13,716		24,647 24,040
Other liabilities	–	–			1,664	1,662		1,664 1,662
Subordinated debt	–	–			764	755		764 755

(1) Includes embedded derivative financial instruments.

Note 2 – Fair Value of Financial Instruments (cont.)

As at October 31, 2021							
Carrying value and fair value					Carrying value	Fair value	
	Financial instruments classified as at fair value through profit or loss	Financial instruments designated at fair value through profit or loss	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	Total carrying value
							Total fair value
Financial assets							
Cash and deposits with financial institutions	–	–	–	–	33,879	33,879	33,879
Securities	83,464	1,347	8,966	617	11,910	11,897	106,304
Securities purchased under reverse repurchase agreements and securities borrowed	–	–	–	–	7,516	7,516	7,516
Loans and acceptances, net of allowances	8,539	–	–	–	174,150	173,769	182,689
Other							
Derivative financial instruments	16,484	–	–	–	–	–	16,484
Other assets	–	–	–	–	1,684	1,684	1,684
Financial liabilities							
Deposits⁽¹⁾	–	14,018			226,920	227,054	240,938
Other							
Acceptances	–	–			6,836	6,836	6,836
Obligations related to securities sold short	20,266	–			–	–	20,266
Obligations related to securities sold under repurchase agreements and securities loaned	–	–			17,293	17,293	17,293
Derivative financial instruments	19,367	–			–	–	19,367
Liabilities related to transferred receivables	–	11,398			13,772	13,724	25,170
Other liabilities	–	–			1,709	1,709	1,709
Subordinated debt	–	–			768	773	768

(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, 2022 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, 2021. The valuation techniques used to determine the fair value of financial assets and financial liabilities are also described in this note, and no significant changes have been made to the valuation techniques.

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, 2021.

Transfers of financial instruments between Levels 1 and 2 and transfers to (or from) Level 3 are deemed to have taken place at the beginning of the quarter in which the transfer occurred. Significant transfers can occur between the fair value hierarchy levels due to new information on inputs used to determine fair value and the observable nature of those inputs.

During the quarter ended April 30, 2022, \$21 million in securities classified as at fair value through profit or loss were transferred from Level 2 to Level 1 resulting from changing market conditions (no significant transfers during the quarter ended April 30, 2021). In addition, during the quarter ended April 30, 2022, \$3 million in securities classified as at fair value through profit or loss were transferred from Level 1 to Level 2 resulting from changing market conditions (\$1 million in securities classified as at fair value through profit or loss during the quarter ended April 30, 2021). During the six-month periods ended April 30, 2022 and 2021, 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, 2022			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	4,737	6,946	–	11,683
Canadian provincial and municipal governments	–	8,428	–	8,428
U.S. Treasury, other U.S. agencies and other foreign governments	5,030	2,353	–	7,383
Other debt securities	–	2,954	54	3,008
Equity securities	46,667	487	432	47,586
	56,434	21,168	486	78,088
At fair value through other comprehensive income				
Securities issued or guaranteed by				
Canadian government	141	3,820	–	3,961
Canadian provincial and municipal governments	–	1,715	–	1,715
U.S. Treasury, other U.S. agencies and other foreign governments	1,528	193	–	1,721
Other debt securities	–	1,186	–	1,186
Equity securities	–	255	319	574
	1,669	7,169	319	9,157
Loans	–	9,010	290	9,300
Other				
Derivative financial instruments	392	22,381	1	22,774
Other assets – other items	–	–	76	76
	58,495	59,728	1,172	119,395
Financial liabilities				
Deposits	–	13,969	1	13,970
Other				
Obligations related to securities sold short	15,683	5,678	–	21,361
Derivative financial instruments	986	18,815	8	19,809
Liabilities related to transferred receivables	–	10,324	–	10,324
	16,669	48,786	9	65,464

Note 2 – Fair Value of Financial Instruments (cont.)

				As at October 31, 2021
	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	2,661	6,716	–	9,377
Canadian provincial and municipal governments	–	8,998	–	8,998
U.S. Treasury, other U.S. agencies and other foreign governments	2,547	1,878	–	4,425
Other debt securities	–	2,484	47	2,531
Equity securities	58,539	517	424	59,480
	63,747	20,593	471	84,811
At fair value through other comprehensive income				
Securities issued or guaranteed by				
Canadian government	19	4,214	–	4,233
Canadian provincial and municipal governments	–	2,313	–	2,313
U.S. Treasury, other U.S. agencies and other foreign governments	1,384	252	–	1,636
Other debt securities	–	784	–	784
Equity securities	–	311	306	617
	1,403	7,874	306	9,583
Loans	–	8,242	297	8,539
Other				
Derivative financial instruments	203	16,278	3	16,484
	65,353	52,987	1,077	119,417
Financial liabilities				
Deposits	–	14,215	–	14,215
Other				
Obligations related to securities sold short	15,546	4,720	–	20,266
Derivative financial instruments	693	18,673	1	19,367
Liabilities related to transferred receivables	–	11,398	–	11,398
	16,239	49,006	1	65,246

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, 2021. For the quarter and six-month period ended April 30, 2022, 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 for 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, 2021. For the six-month period ended April 30, 2022, there were no significant changes in the sensitivity analyses of Level 3 financial instruments.

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 on financial instruments classified in Level 3 presented in the following tables do not reflect the inverse gains and losses on financial instruments used for economic hedging purposes that may have been classified in Level 1 or Level 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, 2022				
	Securities at fair value through profit or loss	Securities at fair value through other comprehensive income	Loans and other assets	Derivative financial instruments ⁽¹⁾	Deposits ⁽²⁾
Fair value as at October 31, 2021	471	306	297	2	–
Total realized and unrealized gains (losses) included in <i>Net income</i> ⁽³⁾	22	–	(20)	(6)	2
Total realized and unrealized gains (losses) included in <i>Other comprehensive income</i>	–	6	–	–	–
Purchases	31	7	71	–	–
Sales	(26)	–	–	–	–
Issuances	–	–	10	–	–
Settlements and other	–	–	7	(4)	–
Financial instruments transferred into Level 3	–	–	1	1	(3)
Financial instruments transferred out of Level 3	(12)	–	–	–	–
Fair value as at April 30, 2022	486	319	366	(7)	(1)
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, 2022 ⁽⁴⁾	15	12	(20)	(6)	2

	Six months ended April 30, 2021				
	Securities at fair value through profit or loss	Securities at fair value through other comprehensive income	Loans and other assets	Derivative financial instruments ⁽¹⁾	Deposits ⁽²⁾
Fair value as at October 31, 2020	457	373	372	29	2
Total realized and unrealized gains (losses) included in <i>Net income</i> ⁽⁵⁾	69	–	19	(27)	–
Total realized and unrealized gains (losses) included in <i>Other comprehensive income</i>	–	(6)	–	–	–
Purchases	14	–	–	–	–
Sales	(9)	–	–	–	–
Issuances	–	–	5	–	–
Settlements and other	–	–	(88)	(1)	–
Financial instruments transferred into Level 3	–	–	–	–	–
Financial instruments transferred out of Level 3	–	–	–	(1)	(2)
Fair value as at April 30, 2021	531	367	308	–	–
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, 2021 ⁽⁶⁾	66	–	19	(27)	–

- (1) The derivative financial instruments include assets and liabilities presented on a net basis.
(2) The amounts represent the fair value of embedded derivative financial instruments in deposits.
(3) Total gains (losses) included in *Non-interest income* was a loss of \$2 million.
(4) Total unrealized gains (losses) included in *Non-interest income* was an unrealized gain of \$3 million.
(5) Total gains (losses) included in *Non-interest income* was a gain of \$61 million.
(6) Total unrealized gains (losses) included in *Non-interest income* was an unrealized gain of \$58 million.

Note 3 – 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, 2021. Consistent with its risk management strategy and in accordance with 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 financial liabilities or recognizing the gains and losses thereon on different bases, the Bank designated, at fair value through profit or loss, certain securities 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, 2022	Unrealized gains (losses) for the quarter ended April 30, 2022	Unrealized gains (losses) for the six months ended April 30, 2022	Unrealized gains (losses) since the initial recognition of the instrument
Financial assets designated at fair value through profit or loss				
Securities	1,164	(36)	(46)	(20)
Financial liabilities designated at fair value through profit or loss				
Deposits ⁽¹⁾⁽²⁾	13,735	1,526	1,675	1,601
Liabilities related to transferred receivables	10,324	273	325	351
	24,059	1,799	2,000	1,952

	Carrying value as at April 30, 2021	Unrealized gains (losses) for the quarter ended April 30, 2021	Unrealized gains (losses) for the six months ended April 30, 2021	Unrealized gains (losses) since the initial recognition of the instrument
Financial assets designated at fair value through profit or loss				
Securities	1,983	(29)	(34)	57
Financial liabilities designated at fair value through profit or loss				
Deposits ⁽¹⁾⁽²⁾	13,140	(354)	(858)	(362)
Liabilities related to transferred receivables	9,975	91	91	(134)
	23,115	(263)	(767)	(496)

(1) For the quarter ended April 30, 2022, 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 \$412 million (\$24 million gain for the quarter ended April 30, 2021). For the six-month period ended April 30, 2022, the corresponding change in this item resulted in a gain of \$441 million (\$90 million loss for the six-month period ended April 30, 2021).

(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 4 – Securities

Credit Quality

As at April 30, 2022 and as at October 31, 2021, securities at fair value through other comprehensive income and securities at amortized cost are classified in Stage 1, with their credit quality falling mostly 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 5 to these consolidated financial statements.

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

	As at April 30, 2022			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Carrying value ⁽¹⁾
Securities issued or guaranteed by				
Canadian government	4,111	2	(152)	3,961
Canadian provincial and municipal governments	1,830	3	(118)	1,715
U.S. Treasury, other U.S. agencies and other foreign governments	1,769	–	(48)	1,721
Other debt securities	1,267	–	(81)	1,186
Equity securities	563	36	(25)	574
	9,540	41	(424)	9,157

	As at October 31, 2021			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Carrying value ⁽¹⁾
Securities issued or guaranteed by				
Canadian government	4,241	30	(38)	4,233
Canadian provincial and municipal governments	2,345	27	(59)	2,313
U.S. Treasury, other U.S. agencies and other foreign governments	1,648	–	(12)	1,636
Other debt securities	782	9	(7)	784
Equity securities	569	57	(9)	617
	9,585	123	(125)	9,583

(1) The allowances for credit losses on securities at fair value through other comprehensive income (excluding the equity securities), representing an amount of \$1 million as at April 30, 2022 (\$1 million as at October 31, 2021), are reported in *Other comprehensive income*. For additional information, see Note 5 to these consolidated financial statements.

Equity Securities Designated at Fair Value Through Other Comprehensive Income

The Bank designated certain equity securities, the main 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, 2022, a dividend income amount of \$7 million was recognized for these investments (\$23 million for the six-month period ended April 30, 2021), including \$1 million in dividend income for investments that were sold during the six-month period ended April 30, 2022 (a negligible amount for investments that were sold during the six-month period ended April 30, 2021).

	Six months ended April 30, 2022			Six months ended April 30, 2021		
	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 beginning	306	311	617	373	246	619
Change in fair value	6	(29)	(23)	(6)	72	66
Designated at fair value through other comprehensive income	7	44	51	–	14	14
Sales ⁽¹⁾	–	(71)	(71)	–	(31)	(31)
Fair value at end	319	255	574	367	301	668

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

Note 4 – Securities (cont.)

Securities at Amortized Cost

	As at April 30, 2022	As at October 31, 2021
Securities issued or guaranteed by		
Canadian government	6,125	5,811
Canadian provincial and municipal governments	2,034	2,225
U.S. Treasury, other U.S. agencies and other foreign governments	126	–
Other debt securities	4,931	3,877
Gross carrying value	13,216	11,913
Allowances for credit losses	6	3
Carrying value	13,210	11,910

Gains (Losses) on Disposals of Securities at Amortized Cost

During the six-month periods ended April 30, 2022 and 2021, the Bank sold certain debt securities measured at amortized cost. The carrying value of these securities upon disposal was \$287 million for the six-month period ended April 30, 2022 (\$143 million for the six-month period ended April 30, 2021), and the Bank recognized gains of \$4 million for the six-month period ended April 30, 2022 (negligible amount for the six-month period ended April 30, 2021) in *Non-interest income – Gains (losses) on non-trading securities, net* in the Consolidated Statement of Income.

Note 5 – 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 Notes 1 and 7 to the audited annual consolidated financial statements for the year ended October 31, 2021.

Credit Quality of Loans

The following tables present the gross carrying amounts of loans as at April 30, 2022 and as at October 31, 2021, 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 Ratings-Based (AIRB) categories, see the Internal Default Risk Ratings table on page 81 in the Credit Risk section of the *2021 Annual Report*.

As at April 30, 2022					
	Non-impaired loans		Impaired loans		Loans at fair value through profit or loss ⁽¹⁾
	Stage 1	Stage 2	Stage 3	POCI	Total
Residential mortgage					
Excellent	30,141	3	–	–	30,144
Good	17,127	109	–	–	17,236
Satisfactory	10,119	2,398	–	–	12,517
Special mention	264	264	–	–	528
Substandard	64	142	–	–	206
Default	–	–	71	–	71
AIRB approach	57,715	2,916	71	–	60,702
Standardized approach	6,207	170	106	278	15,233
Gross carrying amount	63,922	3,086	177	278	75,935
Allowances for credit losses ⁽²⁾	44	57	39	(59)	81
Carrying amount	63,878	3,029	138	337	75,854
Personal					
Excellent	16,613	30	–	–	16,643
Good	12,535	915	–	–	13,450
Satisfactory	6,635	1,550	–	–	8,185
Special mention	329	530	–	–	859
Substandard	98	152	–	–	250
Default	–	–	99	–	99
AIRB approach	36,210	3,177	99	–	39,486
Standardized approach	3,821	89	21	98	4,029
Gross carrying amount	40,031	3,266	120	98	43,515
Allowances for credit losses ⁽²⁾	67	105	65	(22)	215
Carrying amount	39,964	3,161	55	120	43,300
Credit card					
Excellent	600	–	–	–	600
Good	338	–	–	–	338
Satisfactory	646	41	–	–	687
Special mention	292	153	–	–	445
Substandard	34	65	–	–	99
Default	–	–	–	–	–
AIRB approach	1,910	259	–	–	2,169
Standardized approach	83	–	–	–	83
Gross carrying amount	1,993	259	–	–	2,252
Allowances for credit losses ⁽²⁾	33	89	–	–	122
Carrying amount	1,960	170	–	–	2,130
Business and government⁽³⁾					
Excellent	5,638	–	–	–	5,912
Good	25,517	79	–	–	25,649
Satisfactory	25,465	6,599	–	–	32,208
Special mention	102	1,361	–	–	1,463
Substandard	8	273	–	–	281
Default	–	–	299	–	299
AIRB approach	56,730	8,312	299	–	65,812
Standardized approach	6,981	77	15	–	7,430
Gross carrying amount	63,711	8,389	314	–	73,242
Allowances for credit losses ⁽²⁾	115	168	214	–	497
Carrying amount	63,596	8,221	100	–	72,745
Total loans and acceptances					
Gross carrying amount	169,657	15,000	611	376	194,944
Allowances for credit losses ⁽²⁾	259	419	318	(81)	915
Carrying amount	169,398	14,581	293	457	194,029

(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 5 – Loans and Allowances for Credit Losses (cont.)

As at October 31, 2021					
	Non-impaired loans		Impaired loans		Loans at fair value through profit or loss ⁽¹⁾
	Stage 1	Stage 2	Stage 3	POCI	Total
Residential mortgage					
Excellent	28,911	1	–	–	28,912
Good	17,083	53	–	–	17,136
Satisfactory	9,165	2,318	–	–	11,483
Special mention	314	266	–	–	580
Substandard	83	128	–	–	211
Default	–	–	82	–	82
AIRB approach	55,556	2,766	82	–	58,404
Standardized approach	5,803	129	57	332	14,138
Gross carrying amount	61,359	2,895	139	332	72,542
Allowances for credit losses ⁽²⁾	50	52	29	(60)	71
Carrying amount	61,309	2,843	110	392	72,471
Personal					
Excellent	16,211	57	–	–	16,268
Good	11,439	1,041	–	–	12,480
Satisfactory	4,665	1,580	–	–	6,245
Special mention	336	483	–	–	819
Substandard	121	129	–	–	250
Default	–	–	101	–	101
AIRB approach	32,772	3,290	101	–	36,163
Standardized approach	4,692	51	15	132	4,890
Gross carrying amount	37,464	3,341	116	132	41,053
Allowances for credit losses ⁽²⁾	70	98	63	(29)	202
Carrying amount	37,394	3,243	53	161	40,851
Credit card					
Excellent	559	–	–	–	559
Good	322	–	–	–	322
Satisfactory	623	38	–	–	661
Special mention	294	149	–	–	443
Substandard	38	62	–	–	100
Default	–	–	–	–	–
AIRB approach	1,836	249	–	–	2,085
Standardized approach	65	–	–	–	65
Gross carrying amount	1,901	249	–	–	2,150
Allowances for credit losses ⁽²⁾	33	89	–	–	122
Carrying amount	1,868	160	–	–	2,028
Business and government⁽³⁾					
Excellent	5,086	–	–	–	5,355
Good	24,395	131	–	–	24,579
Satisfactory	22,808	6,254	–	–	29,202
Special mention	128	1,509	–	–	1,637
Substandard	45	194	–	–	239
Default	–	–	326	–	326
AIRB approach	52,462	8,088	326	–	61,338
Standardized approach	6,179	84	81	–	6,604
Gross carrying amount	58,641	8,172	407	–	67,942
Allowances for credit losses ⁽²⁾	111	205	287	–	603
Carrying amount	58,530	7,967	120	–	67,339
Total loans and acceptances					
Gross carrying amount	159,365	14,657	662	464	183,687
Allowances for credit losses ⁽²⁾	264	444	379	(89)	998
Carrying amount	159,101	14,213	283	553	182,689

(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.

The following table presents the credit risk exposures of off-balance-sheet commitments as at April 30, 2022 and as at October 31, 2021 according to credit quality and ECL impairment stage.

	As at April 30, 2022				As at October 31, 2021			
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
Off-balance-sheet commitments⁽¹⁾								
Retail								
Excellent	17,125	29	–	17,154	17,053	72	–	17,125
Good	3,844	271	–	4,115	3,750	323	–	4,073
Satisfactory	1,171	235	–	1,406	1,085	229	–	1,314
Special mention	241	64	–	305	197	57	–	254
Substandard	14	14	–	28	16	13	–	29
Default	–	–	1	1	–	–	3	3
Non-retail								
Excellent	13,902	–	–	13,902	14,097	–	–	14,097
Good	17,456	7	–	17,463	17,497	2	–	17,499
Satisfactory	6,678	2,744	–	9,422	7,575	2,377	–	9,952
Special mention	11	323	–	334	14	336	–	350
Substandard	1	54	–	55	5	38	–	43
Default	–	–	4	4	–	–	3	3
AIRB approach	60,443	3,741	5	64,189	61,289	3,447	6	64,742
Standardized approach	14,989	–	–	14,989	14,872	–	1	14,873
Total exposure	75,432	3,741	5	79,178	76,161	3,447	7	79,615
Allowances for credit losses	87	44	–	131	104	58	–	162
Total exposure, net of allowances	75,345	3,697	5	79,047	76,057	3,389	7	79,453

(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, 2022				As at October 31, 2021			
	Residential mortgage	Personal	Credit card	Business and government ⁽²⁾	Residential mortgage	Personal	Credit card	Business and government ⁽²⁾
Past due but not impaired								
31 to 60 days	43	63	18	6	48	71	20	24
61 to 90 days	26	26	9	14	18	21	9	13
Over 90 days ⁽³⁾	–	–	22	–	–	–	21	–
	69	89	49	20	66	92	50	37

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

(2) Includes customers' liability under acceptances.

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

Impaired Loans

	As at April 30, 2022			As at October 31, 2021		
	Gross	Allowances for credit losses	Net	Gross	Allowances for credit losses	Net
Loans – Stage 3						
Residential mortgage	177	39	138	139	29	110
Personal	120	65	55	116	63	53
Credit card ⁽¹⁾	–	–	–	–	–	–
Business and government ⁽²⁾	314	214	100	407	287	120
	611	318	293	662	379	283
POCI loans	376	(81)	457	464	(89)	553
	987	237	750	1,126	290	836

(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.

Note 5 – Loans and Allowances for Credit Losses (cont.)

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, 2022					Allowances for credit losses as at April 30, 2022
	Allowances for credit losses as at January 31, 2022	Provisions for credit losses	Write-offs ⁽¹⁾	Disposals	Recoveries and other	
Balance sheet						
Cash and deposits with financial institutions⁽²⁾⁽³⁾	7	(2)	–	–	–	5
Securities⁽³⁾						
At fair value through other comprehensive income ⁽⁴⁾	1	–	–	–	–	1
At amortized cost ⁽²⁾	5	1	–	–	–	6
Securities purchased under reverse repurchase agreements and securities borrowed⁽²⁾⁽³⁾	–	–	–	–	–	–
Loans⁽⁵⁾						
Residential mortgage	80	1	(1)	–	1	81
Personal	212	11	(12)	–	4	215
Credit card	124	8	(15)	–	5	122
Business and government	451	10	(14)	–	1	448
Customers' liability under acceptances	61	(12)	–	–	–	49
	928	18	(42)	–	11	915
Other assets⁽²⁾⁽³⁾	–	–	–	–	–	–
Off-balance-sheet commitments⁽⁶⁾						
Letters of guarantee and documentary letters of credit	10	1	–	–	–	11
Undrawn commitments	130	(15)	–	–	–	115
Backstop liquidity and credit enhancement facilities	5	–	–	–	–	5
	145	(14)	–	–	–	131
	1,086	3	(42)	–	11	1,058

	Quarter ended April 30, 2021					Allowances for credit losses as at April 30, 2021
	Allowances for credit losses as at January 31, 2021	Provisions for credit losses	Write-offs ⁽¹⁾	Disposals	Recoveries and other	
Balance sheet						
Cash and deposits with financial institutions⁽²⁾⁽³⁾	6	(1)	–	–	–	5
Securities⁽³⁾						
At fair value through other comprehensive income ⁽⁴⁾	2	(1)	–	–	–	1
At amortized cost ⁽²⁾	1	–	–	–	–	1
Securities purchased under reverse repurchase agreements and securities borrowed⁽²⁾⁽³⁾	–	–	–	–	–	–
Loans⁽⁵⁾						
Residential mortgage	71	10	(2)	–	–	79
Personal	276	(5)	(20)	(7)	2	246
Credit card	171	(4)	(16)	–	4	155
Business and government	542	12	(10)	–	(1)	543
Customers' liability under acceptances	89	2	–	–	–	91
	1,149	15	(48)	(7)	5	1,114
Other assets⁽²⁾⁽³⁾	–	–	–	–	–	–
Off-balance-sheet commitments⁽⁶⁾						
Letters of guarantee and documentary letters of credit	15	(4)	–	–	–	11
Undrawn commitments	177	(4)	–	–	–	173
Backstop liquidity and credit enhancement facilities	4	–	–	–	–	4
	196	(8)	–	–	–	188
	1,354	5	(48)	(7)	5	1,309

(1) The contractual amount outstanding on financial assets that were written off during the quarter ended April 30, 2022 and that are still subject to enforcement activity was \$25 million (\$29 million for the quarter ended April 30, 2021).

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

(3) As at April 30, 2022 and 2021, these financial assets were mainly classified in Stage 1 and their credit quality fell mostly 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.

	Six months ended April 30, 2022					Allowances for credit losses as at April 30, 2022
	Allowances for credit losses as at October 31, 2021	Provisions for credit losses	Write-offs ⁽¹⁾	Disposals	Recoveries and other	
Balance sheet						
Cash and deposits with financial institutions⁽²⁾⁽³⁾	5	–	–	–	–	5
Securities⁽³⁾						
At fair value through other comprehensive income ⁽⁴⁾	1	–	–	–	–	1
At amortized cost ⁽²⁾	3	3	–	–	–	6
Securities purchased under reverse repurchase agreements and securities borrowed⁽²⁾⁽³⁾	–	–	–	–	–	–
Loans⁽⁵⁾						
Residential mortgage	71	11	(2)	–	1	81
Personal	202	26	(23)	–	10	215
Credit card	122	21	(30)	–	9	122
Business and government	515	10	(81)	–	4	448
Customers' liability under acceptances	88	(39)	–	–	–	49
	998	29	(136)	–	24	915
Other assets⁽²⁾⁽³⁾	–	–	–	–	–	–
Off-balance-sheet commitments⁽⁶⁾						
Letters of guarantee and documentary letters of credit	13	(2)	–	–	–	11
Undrawn commitments	143	(28)	–	–	–	115
Backstop liquidity and credit enhancement facilities	6	(1)	–	–	–	5
	162	(31)	–	–	–	131
	1,169	1	(136)	–	24	1,058

	Six months ended April 30, 2021					Allowances for credit losses as at April 30, 2021
	Allowances for credit losses as at October 31, 2020	Provisions for credit losses	Write-offs ⁽¹⁾	Disposals	Recoveries and other	
Balance sheet						
Cash and deposits with financial institutions⁽²⁾⁽³⁾	5	–	–	–	–	5
Securities⁽³⁾						
At fair value through other comprehensive income ⁽⁴⁾	3	(2)	–	–	–	1
At amortized cost ⁽²⁾	1	–	–	–	–	1
Securities purchased under reverse repurchase agreements and securities borrowed⁽²⁾⁽³⁾	–	–	–	–	–	–
Loans⁽⁵⁾						
Residential mortgage	65	18	(3)	–	(1)	79
Personal	298	2	(44)	(14)	4	246
Credit card	169	8	(31)	–	9	155
Business and government	533	50	(37)	–	(3)	543
Customers' liability under acceptances	93	(2)	–	–	–	91
	1,158	76	(115)	(14)	9	1,114
Other assets⁽²⁾⁽³⁾	–	–	–	–	–	–
Off-balance-sheet commitments⁽⁶⁾						
Letters of guarantee and documentary letters of credit	15	(4)	–	–	–	11
Undrawn commitments	157	16	–	–	–	173
Backstop liquidity and credit enhancement facilities	4	–	–	–	–	4
	176	12	–	–	–	188
	1,343	86	(115)	(14)	9	1,309

(1) The contractual amount outstanding on financial assets that were written off during the six-month period ended April 30, 2022 and that are still subject to enforcement activity was \$47 million (\$58 million for the six-month period ended April 30, 2021).

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

(3) As at April 30, 2022 and 2021, these financial assets were mainly classified in Stage 1 and their credit quality fell mostly 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 5 – Loans and Allowances for Credit Losses (cont.)

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

	Quarter ended April 30, 2022					Quarter ended April 30, 2021				
	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	40	63	34	(57)	80	60	28	31	(48)	71
Originations or purchases	4	–	–	–	4	3	–	–	–	3
Transfers ⁽²⁾ :										
to Stage 1	7	(6)	(1)	–	–	4	(3)	(1)	–	–
to Stage 2	(1)	1	–	–	–	(1)	1	–	–	–
to Stage 3	–	–	–	–	–	–	(1)	1	–	–
Net remeasurement of loss allowances ⁽³⁾	(5)	(1)	6	(1)	(1)	3	3	1	1	8
Derecognitions ⁽⁴⁾	(1)	(1)	–	–	(2)	(1)	–	–	–	(1)
Changes to models	–	–	–	–	–	–	–	–	–	–
Provisions for credit losses	4	(7)	5	(1)	1	8	–	1	1	10
Write-offs	–	–	(1)	–	(1)	–	–	(2)	–	(2)
Disposals	–	–	–	–	–	–	–	–	–	–
Recoveries	–	–	1	–	1	–	–	1	–	1
Foreign exchange movements and other	–	1	–	(1)	–	(2)	–	(1)	2	(1)
Balance at end	44	57	39	(59)	81	66	28	30	(45)	79
Includes:										
Amounts drawn	44	57	39	(59)	81	66	28	30	(45)	79
Undrawn commitments ⁽⁵⁾	–	–	–	–	–	–	–	–	–	–
Personal										
Balance at beginning	70	111	63	(25)	219	80	138	69	(6)	281
Originations or purchases	12	–	–	–	12	8	–	–	–	8
Transfers ⁽²⁾ :										
to Stage 1	13	(12)	(1)	–	–	15	(13)	(2)	–	–
to Stage 2	(3)	4	(1)	–	–	(3)	3	–	–	–
to Stage 3	–	(7)	7	–	–	–	(8)	8	–	–
Net remeasurement of loss allowances ⁽³⁾	(19)	16	5	3	5	(21)	10	4	1	(6)
Derecognitions ⁽⁴⁾	(2)	(4)	–	–	(6)	(3)	(3)	(1)	–	(7)
Changes to models	–	–	–	–	–	–	–	–	–	–
Provisions for credit losses	1	(3)	10	3	11	(4)	(11)	9	1	(5)
Write-offs	–	–	(12)	–	(12)	–	–	(20)	–	(20)
Disposals	–	–	–	–	–	(2)	(5)	–	–	(7)
Recoveries	–	–	5	–	5	–	–	5	–	5
Foreign exchange movements and other	(1)	1	(1)	–	(1)	(2)	(1)	–	–	(3)
Balance at end	70	109	65	(22)	222	72	121	63	(5)	251
Includes:										
Amounts drawn	67	105	65	(22)	215	70	118	63	(5)	246
Undrawn commitments ⁽⁵⁾	3	4	–	–	7	2	3	–	–	5

- (1) The total amount of undiscounted initially expected credit losses on the POCI loans acquired during the quarter ended April 30, 2022 was \$4 million (no POCI loan was acquired during the quarter ended April 30, 2021). The expected credit losses reflected in the purchase price have been 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.

	Quarter ended April 30, 2022					Quarter ended April 30, 2021				
	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	55	103	–	–	158	72	134	–	–	206
Originations or purchases	3	–	–	–	3	2	–	–	–	2
Transfers ⁽²⁾ :										
to Stage 1	21	(21)	–	–	–	21	(21)	–	–	–
to Stage 2	(4)	4	–	–	–	(4)	4	–	–	–
to Stage 3	–	(6)	6	–	–	–	(8)	8	–	–
Net remeasurement of loss allowances ⁽³⁾	(20)	23	4	–	7	(22)	17	4	–	(1)
Derecognitions ⁽⁴⁾	–	(1)	–	–	(1)	–	(1)	–	–	(1)
Changes to models	–	–	–	–	–	–	–	–	–	–
Provisions for credit losses	–	(1)	10	–	9	(3)	(9)	12	–	–
Write-offs	–	–	(15)	–	(15)	–	–	(16)	–	(16)
Disposals	–	–	–	–	–	–	–	–	–	–
Recoveries	–	–	5	–	5	–	–	4	–	4
Foreign exchange movements and other	–	–	–	–	–	–	–	–	–	–
Balance at end	55	102	–	–	157	69	125	–	–	194
Includes:										
Amounts drawn	33	89	–	–	122	42	113	–	–	155
Undrawn commitments ⁽⁵⁾	22	13	–	–	35	27	12	–	–	39
Business and government⁽⁶⁾										
Balance at beginning	175	202	224	–	601	209	302	257	–	768
Originations or purchases	14	–	–	–	14	25	–	–	–	25
Transfers ⁽²⁾ :										
to Stage 1	12	(12)	–	–	–	15	(15)	–	–	–
to Stage 2	(4)	5	(1)	–	–	(6)	7	(1)	–	–
to Stage 3	–	–	–	–	–	–	(11)	11	–	–
Net remeasurement of loss allowances ⁽³⁾	(22)	(2)	6	–	(18)	(50)	14	34	–	(2)
Derecognitions ⁽⁴⁾	(9)	(3)	(2)	–	(14)	(8)	(8)	(1)	–	(17)
Changes to models	–	–	–	–	–	–	–	–	–	–
Provisions for credit losses	(9)	(12)	3	–	(18)	(24)	(13)	43	–	6
Write-offs	–	–	(14)	–	(14)	–	–	(10)	–	(10)
Disposals	–	–	–	–	–	–	–	–	–	–
Recoveries	–	–	1	–	1	–	–	1	–	1
Foreign exchange movements and other	–	–	–	–	–	–	–	(2)	–	(2)
Balance at end	166	190	214	–	570	185	289	289	–	763
Includes:										
Amounts drawn	115	168	214	–	497	116	229	289	–	634
Undrawn commitments ⁽⁵⁾	51	22	–	–	73	69	60	–	–	129
Total allowances for credit losses at end⁽⁷⁾	335	458	318	(81)	1,030	392	563	382	(50)	1,287
Includes:										
Amounts drawn	259	419	318	(81)	915	294	488	382	(50)	1,114
Undrawn commitments ⁽⁵⁾	76	39	–	–	115	98	75	–	–	173

- (1) The total amount of undiscounted initially expected credit losses on the POCI loans acquired during the quarter ended April 30, 2022 was \$4 million (no POCI loan was acquired during the quarter ended April 30, 2021). The expected credit losses reflected in the purchase price have been 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.

Note 5 – Loans and Allowances for Credit Losses (cont.)

	Six months ended April 30, 2022					Six months ended April 30, 2021				
	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	50	52	29	(60)	71	63	23	35	(56)	65
Originations or purchases	9	–	–	–	9	5	–	–	–	5
Transfers ⁽²⁾ :										
to Stage 1	10	(9)	(1)	–	–	12	(7)	(5)	–	–
to Stage 2	(2)	2	–	–	–	(2)	2	–	–	–
to Stage 3	–	–	–	–	–	–	(1)	1	–	–
Net remeasurement of loss allowances ⁽³⁾	(23)	13	12	3	5	(7)	12	3	7	15
Derecognitions ⁽⁴⁾	(1)	(2)	–	–	(3)	(1)	(1)	–	–	(2)
Changes to models	–	–	–	–	–	–	–	–	–	–
Provisions for credit losses	(7)	4	11	3	11	7	5	(1)	7	18
Write-offs	–	–	(2)	–	(2)	–	–	(3)	–	(3)
Disposals	–	–	–	–	–	–	–	–	–	–
Recoveries	–	–	1	–	1	–	–	2	–	2
Foreign exchange movements and other	1	1	–	(2)	–	(4)	–	(3)	4	(3)
Balance at end	44	57	39	(59)	81	66	28	30	(45)	79
Includes:										
Amounts drawn	44	57	39	(59)	81	66	28	30	(45)	79
Undrawn commitments ⁽⁵⁾	–	–	–	–	–	–	–	–	–	–
Personal										
Balance at beginning	73	103	63	(29)	210	89	148	76	(10)	303
Originations or purchases	24	–	–	–	24	16	–	–	–	16
Transfers ⁽²⁾ :										
to Stage 1	31	(28)	(3)	–	–	41	(36)	(5)	–	–
to Stage 2	(6)	7	(1)	–	–	(6)	7	(1)	–	–
to Stage 3	–	(13)	13	–	–	–	(16)	16	–	–
Net remeasurement of loss allowances ⁽³⁾	(45)	39	8	7	9	(51)	33	13	5	–
Derecognitions ⁽⁴⁾	(5)	(8)	(1)	–	(14)	(6)	(7)	(1)	–	(14)
Changes to models	(2)	8	–	–	6	–	–	–	–	–
Provisions for credit losses	(3)	5	16	7	25	(6)	(19)	22	5	2
Write-offs	–	–	(23)	–	(23)	–	–	(44)	–	(44)
Disposals	–	–	–	–	–	(8)	(6)	–	–	(14)
Recoveries	–	–	10	–	10	–	–	10	–	10
Foreign exchange movements and other	–	1	(1)	–	–	(3)	(2)	(1)	–	(6)
Balance at end	70	109	65	(22)	222	72	121	63	(5)	251
Includes:										
Amounts drawn	67	105	65	(22)	215	70	118	63	(5)	246
Undrawn commitments ⁽⁵⁾	3	4	–	–	7	2	3	–	–	5

- (1) The total amount of undiscounted initially expected credit losses on the POCI loans acquired during the six-month period ended April 30, 2022 was \$9 million (no POCI loan was acquired during the six-month period ended April 30, 2021). The expected credit losses reflected in the purchase price have been 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.

	Six months ended April 30, 2022					Six months ended April 30, 2021				
	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	57	101	–	–	158	68	137	–	–	205
Originations or purchases	6	–	–	–	6	4	–	–	–	4
Transfers ⁽²⁾ :										
to Stage 1	43	(43)	–	–	–	50	(50)	–	–	–
to Stage 2	(9)	9	–	–	–	(7)	7	–	–	–
to Stage 3	–	(11)	11	–	–	–	(15)	15	–	–
Net remeasurement of loss allowances ⁽³⁾	(41)	47	10	–	16	(45)	47	7	–	9
Derecognitions ⁽⁴⁾	(1)	(1)	–	–	(2)	(1)	(1)	–	–	(2)
Changes to models	–	–	–	–	–	–	–	–	–	–
Provisions for credit losses	(2)	1	21	–	20	1	(12)	22	–	11
Write-offs	–	–	(30)	–	(30)	–	–	(31)	–	(31)
Disposals	–	–	–	–	–	–	–	–	–	–
Recoveries	–	–	9	–	9	–	–	9	–	9
Foreign exchange movements and other	–	–	–	–	–	–	–	–	–	–
Balance at end	55	102	–	–	157	69	125	–	–	194
Includes:										
Amounts drawn	33	89	–	–	122	42	113	–	–	155
Undrawn commitments ⁽⁵⁾	22	13	–	–	35	27	12	–	–	39
Business and government⁽⁶⁾										
Balance at beginning	177	238	287	–	702	214	287	241	–	742
Originations or purchases	36	–	–	–	36	54	–	–	–	54
Transfers ⁽²⁾ :										
to Stage 1	40	(40)	–	–	–	21	(20)	(1)	–	–
to Stage 2	(12)	14	(2)	–	–	(30)	32	(2)	–	–
to Stage 3	–	(1)	1	–	–	–	(16)	16	–	–
Net remeasurement of loss allowances ⁽³⁾	(57)	(4)	7	–	(54)	(60)	20	78	–	38
Derecognitions ⁽⁴⁾	(18)	(17)	(2)	–	(37)	(14)	(13)	(4)	–	(31)
Changes to models	–	–	–	–	–	–	–	–	–	–
Provisions for credit losses	(11)	(48)	4	–	(55)	(29)	3	87	–	61
Write-offs	–	–	(81)	–	(81)	–	–	(37)	–	(37)
Disposals	–	–	–	–	–	–	–	–	–	–
Recoveries	–	–	2	–	2	–	–	2	–	2
Foreign exchange movements and other	–	–	2	–	2	–	(1)	(4)	–	(5)
Balance at end	166	190	214	–	570	185	289	289	–	763
Includes:										
Amounts drawn	115	168	214	–	497	116	229	289	–	634
Undrawn commitments ⁽⁵⁾	51	22	–	–	73	69	60	–	–	129
Total allowances for credit losses at end⁽⁷⁾	335	458	318	(81)	1,030	392	563	382	(50)	1,287
Includes:										
Amounts drawn	259	419	318	(81)	915	294	488	382	(50)	1,114
Undrawn commitments ⁽⁵⁾	76	39	–	–	115	98	75	–	–	173

- (1) The total amount of undiscounted initially expected credit losses on the POCI loans acquired during the six-month period ended April 30, 2022 was \$9 million (no POCI loan was acquired during the six-month period ended April 30, 2021). The expected credit losses reflected in the purchase price have been 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.

Note 5 – Loans and Allowances for Credit Losses (cont.)

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 macroeconomic 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, 2022					
	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⁾	2.4 %	1.5 %	2.9 %	1.7 %	(5.3) %	3.2 %
Unemployment rate	5.3 %	5.5 %	5.1 %	4.6 %	8.0 %	6.6 %
Housing price index growth ⁽²⁾	2.0 %	0.2 %	4.0 %	1.9 %	(11.5) %	1.2 %
BBB spread ⁽³⁾	1.8 %	2.0 %	1.7 %	1.7 %	3.0 %	2.2 %
S&P/TSX growth ⁽²⁾⁽⁴⁾	7.0 %	1.8 %	12.2 %	2.6 %	(25.6) %	5.5 %
WTI oil price ⁽⁵⁾ (US\$ per barrel)	96	79	104	99	45	52

As at October 31, 2021						
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⁾	4.2 %	1.6 %	4.7 %	1.9 %	(5.5) %	3.7 %
Unemployment rate	6.6 %	6.3 %	6.3 %	5.6 %	9.5 %	7.8 %
Housing price index growth ⁽²⁾	2.0 %	0.2 %	4.0 %	1.9 %	(11.5) %	1.2 %
BBB spread ⁽³⁾	1.7 %	1.9 %	1.6 %	1.7 %	3.1 %	2.2 %
S&P/TSX growth ⁽²⁾⁽⁴⁾	4.8 %	2.1 %	8.6 %	3.1 %	(25.6) %	5.5 %
WTI oil price ⁽⁵⁾ (US\$ per barrel)	70	65	77	77	35	34

(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 BBB spread 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 six-month period ended April 30, 2022, the macroeconomic outlook evolved.

According to the base scenario, the global economy will encounter a series of challenges in 2022, including a resurgence of COVID-19, supply chain issues, inflationary pressures, a normalizing of interest rates by central banks, and geopolitical uncertainty. Nevertheless, the Canadian economy will remain well positioned, as consumers have accumulated considerable excess savings in a context of full employment. The strength of the natural resources sector may also partly offset an economic shock on consumption caused by upcoming increases to interest rates. The unemployment rate will stand at 5.2% after 12 months, which is below its pre-recession level (5.7%). The increase in housing prices will slow to 2.0% year over year. The S&P/TSX will stand at 22,800 points after one year, with the price of oil at US\$93.

According to the upside scenario, the economy will be surprisingly positive, with the labour market continuing to improve. A quick resolution to the conflict in Ukraine will bolster confidence and create a supportive backdrop. Governments will maintain considerable fiscal stimulus in Canada and the United States, which will favour an even stronger recovery. Consumer spending will trend upward given the excess savings accumulated since the start of the pandemic. Inflation will come under control as supply chains return to normal without any significant tightening of monetary policy. The unemployment rate after one year will be more favourable than the base scenario (three-tenths lower). Housing prices will climb 4.0%. The S&P/TSX will stand at 23,900 points after one year, with the price of oil at US\$104.

In the downside scenario, supply chain issues will persist and China will experience bottlenecks. The situation in Ukraine will deteriorate considerably, which will disrupt global agriculture markets, and several countries will record a drop in economic activity. In addition, central banks underestimated the impact of rising interest rates in a context of persistent supply shock. Given budgetary constraints, governments cannot continue to support households and businesses. The economic contraction will push the unemployment rate to 8.8% after 12 months. Housing prices will decrease considerably. The S&P/TSX will stand at 15,850 points after one year, with the price of oil at US\$37.

Given uncertainty surrounding the key inputs used to measure credit losses, the Bank has applied expert credit judgment to adjust the modelled expected credit loss 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, 2022 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, 2022	793
Simulations	
100% upside scenario	586
100% base scenario	632
100% downside scenario	1,115

Note 6 – 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, 2021.

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, 2022	As at October 31, 2021
Carrying value of financial assets transferred but not derecognized		
Securities ⁽¹⁾	68,538	68,296
Residential mortgages	22,431	22,413
	90,969	90,709
Carrying value of associated liabilities⁽²⁾	47,416	40,779
Fair value of financial assets transferred but not derecognized		
Securities ⁽¹⁾	68,538	68,296
Residential mortgages	21,474	22,249
	90,012	90,545
Fair value of associated liabilities⁽²⁾	46,809	40,731

(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 \$3,384 million as at April 30, 2022 (\$3,367 million as at October 31, 2021) 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 stood at \$9,410 million before the offsetting impact of \$4,502 million as at April 30, 2022 (\$7,993 million before the offsetting impact of \$4,333 million as at October 31, 2021).

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

	As at April 30, 2022	As at October 31, 2021
Carrying value of financial assets transferred but not derecognized		
Securities backed by insured residential mortgage loans and other securities sold to Canada Housing Trust	23,828	24,034
Securities sold under repurchase agreements	25,076	17,553
Securities loaned	42,065	49,122
	90,969	90,709

Note 7 – Other Assets

	As at April 30, 2022	As at October 31, 2021
Receivables, prepaid expenses and other items	2,162	1,228
Interest and dividends receivable	697	696
Due from clients, dealers and brokers	1,300	988
Defined benefit asset	898	691
Deferred tax assets	190	354
Current tax assets	459	445
Reinsurance assets	13	28
Insurance assets	80	38
	5,799	4,468

Note 8 – Deposits

	As at April 30, 2022				As at October 31, 2021
	On demand ⁽¹⁾	After notice ⁽²⁾	Fixed term ⁽³⁾	Total	Total
Personal	6,172	37,122	28,532	71,826	70,076
Business and government	60,656	32,788	76,258	169,702	167,870
Deposit-taking institutions	2,863	533	1,760	5,156	2,992
	69,691	70,443	106,550	246,684	240,938

(1) Demand deposits are deposits for which the Bank does not have the right to require a notice of withdrawal and consist essentially of deposits in chequing accounts.

(2) Notice deposits are deposits for which the Bank may legally require a 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 for which the balance was \$10.6 billion as at April 30, 2022 (\$8.8 billion as at October 31, 2021). During the six-month period ended April 30, 2022, an amount of 1.0 billion euros in covered bonds reached maturity, and the Bank issued 1.3 billion euros and US\$1.5 billion in covered bonds (US\$270 million and 1.0 billion euros in covered bonds reached maturity, and the Bank issued 500 million euros in covered bonds during the six-month period ended April 30, 2021). For additional information on covered bonds, see Note 27 to the audited annual consolidated financial statements for the year ended October 31, 2021.

In addition, as at April 30, 2022, the *Deposits – Business and government* item also includes deposits of \$14.8 billion (\$11.9 billion as at October 31, 2021) 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 9 – Other Liabilities

	As at April 30, 2022	As at October 31, 2021
Accounts payable and accrued expenses	1,912	2,469
Subsidiaries' debts to third parties	245	437
Interest and dividends payable	579	552
Lease liabilities	572	575
Due to clients, dealers and brokers	685	735
Defined benefit liability	118	143
Allowances for credit losses – Off-balance-sheet commitments (Note 5)	131	162
Deferred tax liabilities	16	10
Current tax liabilities	77	478
Insurance liabilities	5	11
Other items ⁽¹⁾⁽²⁾⁽³⁾	928	729
	5,268	6,301

(1) As at April 30, 2022, *Other* items included a \$10 million litigation provision (\$12 million as at October 31, 2021).

(2) As at April 30, 2022, *Other* items included \$33 million in provisions for onerous contracts (\$33 million as at October 31, 2021).

(3) As at April 30, 2022, *Other* items included the financial liability resulting from put options written to non-controlling interests of Flinks Technology Inc. (Flinks) for an amount of \$27 million (\$25 million as at October 31, 2021).

Note 10 – Share Capital and Other Equity Instruments

Repurchase of Common Shares

On December 10, 2021, the Bank began a normal course issuer bid to repurchase for cancellation up to 7,000,000 common shares (representing approximately 2% of its outstanding common shares) over the 12-month period ending no later than December 9, 2022. Any repurchase through the Toronto Stock Exchange will be done at market prices. The common shares may also be repurchased through other means authorized by the Toronto Stock Exchange and applicable regulations, including private agreements or share repurchase programs under issuer bid exemption orders issued by the securities regulators. A private purchase made under an exemption order issued by a securities regulator will be done at a discount to the prevailing market price. The amounts that are paid above the average book value of the common shares are charged to *Retained earnings*. During the six-month period ended April 30, 2022, the Bank repurchased 2,500,000 common shares for \$245 million, which reduced *Common share* capital by \$24 million and *Retained earnings* by \$221 million.

Shares and Other Equity Instruments Outstanding

	As at April 30, 2022		As at October 31, 2021	
	Number of shares or LRCN ⁽¹⁾	Shares or LRCN \$	Number of shares or LRCN	Shares or LRCN \$
First Preferred Shares				
Series 30	14,000,000	350	14,000,000	350
Series 32	12,000,000	300	12,000,000	300
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
	66,000,000	1,650	66,000,000	1,650
Other equity instruments				
LRCN – Series 1	500,000	500	500,000	500
LRCN – Series 2	500,000	500	500,000	500
	1,000,000	1,000	1,000,000	1,000
Preferred shares and other equity instruments	67,000,000	2,650	67,000,000	2,650
Common shares at beginning of fiscal year	337,912,283	3,160	335,997,660	3,057
Issued pursuant to the Stock Option Plan	1,015,276	52	1,930,033	104
Repurchases of common shares for cancellation	(2,500,000)	(24)	–	–
Impact of shares purchased or sold for trading ⁽²⁾	90,761	8	(14,432)	(1)
Other	(5,527)	–	(978)	–
Common shares at end of period	336,512,793	3,196	337,912,283	3,160

(1) Limited Recourse Capital Notes (LRCN).

(2) As at April 30, 2022, a total of 103,806 shares were sold short for trading, representing an amount of \$9 million (13,045 shares were sold short for trading, representing \$1 million as at October 31, 2021).

Dividends Declared and Distributions on Other Equity Instruments

	2022		2021	
	Dividends or interest \$	Dividends per share	Dividends or interest \$	Dividends per share
First Preferred Shares				
Series 30	7	0.5031	7	0.5031
Series 32	6	0.4799	6	0.4799
Series 34	–	–	11	0.7000
Series 36	–	–	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
	36		58	
Other equity instruments				
LRCN – Series 1 ⁽¹⁾	10		10	
LRCN – Series 2 ⁽²⁾	10		1	
	20		11	
Preferred shares and other equity instruments	56		69	
Common shares	587	1.7400	479	1.4200
	643		548	

(1) The LRCN – Series 1 bear interest at a fixed rate of 4.30% per annum.

(2) The LRCN – Series 2 bear interest at a fixed rate of 4.05% per annum.

Note 11 – Capital Disclosure

The Bank and all other major Canadian banks have to maintain minimum capital ratios established by OSFI: a CET1 capital ratio of at least 10.5%, a Tier 1 capital ratio of at least 12.0%, and a Total capital ratio of at least 14.0%. All of these ratios are to include a capital conservation buffer of 2.5% established by the Basel Committee on Banking Supervision and OSFI as well as a 1.0% surcharge applicable solely to Domestic Systemically Important Banks (D-SIBs), and a 2.5% 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 December 10, 2021, OSFI confirmed that the domestic stability buffer was being maintained at 2.5%. 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. Lastly, OSFI requires Canadian banks to meet a Basel III leverage ratio of at least 3.0%.

Since November 1, 2021, OSFI has also been requiring D-SIBs to maintain a risk-based total loss-absorbing capacity (TLAC) ratio of at least 24.0% (including the domestic stability buffer) of risk-weighted assets and a TLAC leverage ratio of at least 6.75%. The purpose of TLAC is to ensure that a D-SIB has sufficient loss-absorbing capacity to support its recapitalization in the unlikely event it becomes non-viable.

During the quarter and six-month period ended April 30, 2022, the Bank was in compliance with all of OSFI's regulatory capital, leverage, and TLAC requirements.

Note 11 – Capital Disclosure (cont.)

Regulatory Capital⁽¹⁾ and TLAC⁽²⁾

	As at April 30, 2022		As at October 31, 2021	
	Adjusted ⁽³⁾		Adjusted ⁽³⁾	
Capital				
CET1	13,790	13,833	12,866	12,973
Tier 1	16,438	16,481	15,515	15,622
Total	17,399	17,399	16,643	16,643
Risk-weighted assets	107,478	107,478	104,358	104,358
Total exposure	371,977	371,977	351,160	351,160
Capital ratios				
CET1	12.8 %	12.9 %	12.3 %	12.4 %
Tier 1	15.3 %	15.3 %	14.9 %	15.0 %
Total	16.2 %	16.2 %	15.9 %	15.9 %
Leverage ratio	4.4 %	4.4 %	4.4 %	4.4 %
Available TLAC⁽²⁾	29,887	29,887	27,492	27,492
TLAC ratio⁽²⁾	27.8 %	27.8 %	26.3 %	26.3 %
TLAC leverage ratio⁽²⁾	8.0 %	8.0 %	7.8 %	7.8 %

(1) Capital, risk-weighted assets, total exposure, the capital ratios, and the leverage ratio are calculated in accordance with the Basel III rules, as set out in OSFI's *Capital Adequacy Requirements* and *Leverage Requirements* guidelines.

(2) Available TLAC, the TLAC ratio, and the TLAC leverage ratio are calculated in accordance with OSFI's *Total Loss Absorbing Capacity* guideline.

(3) Adjusted amounts are calculated in accordance with the Basel III rules, as set out in OSFI's *Capital Adequacy Requirements* guideline, and exclude the transitional measure for provisioning expected credit losses. For additional information, see the section entitled COVID-19 Pandemic – Key Measures Introduced by the Regulatory Authorities on page 17 of the *2021 Annual Report*.

Note 12 – Share-Based Payments

Stock Option Plan

During the quarters ended April 30, 2022 and 2021, the Bank did not award any stock options. During the six months ended April 30, 2022, the Bank awarded 1,771,588 stock options (2,043,196 stock options during the six months ended April 30, 2021) with an average fair value of \$13.24 per option (\$8.24 in 2021).

As at April 30, 2022, there were 12,040,704 stock options outstanding (11,348,680 stock options as at October 31, 2021).

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	
	2022	2021
Risk-free interest rate	1.79%	1.02%
Expected life of options	7 years	7 years
Expected volatility	22.68%	22.59%
Expected dividend yield	3.88%	4.24%

During the quarter ended April 30, 2022, a \$4 million compensation expense was recorded for this plan (\$2 million for the quarter ended April 30, 2021). During the six-month period ended April 30, 2022, an \$8 million compensation expense was recorded for this plan (\$5 million for the six-month period ended April 30, 2021).

Note 13 – 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	
	2022	2021	2022	2021
Current service cost	31	37	–	–
Interest expense (income), net	(5)	–	1	1
Administrative costs	1	1		
Expense recognized in <i>Net income</i>	27	38	1	1
Remeasurements⁽¹⁾				
Actuarial (gains) losses on defined benefit obligation	(725)	(442)	(19)	(13)
Return on plan assets ⁽²⁾	641	262		
Remeasurements recognized in <i>Other comprehensive income</i>	(84)	(180)	(19)	(13)
	(57)	(142)	(18)	(12)

Six months ended April 30				
	Pension plans		Other post-employment benefit plans	
	2022	2021	2022	2021
Current service cost	62	73	–	–
Interest expense (income), net	(10)	–	2	2
Administrative costs	2	2		
Expense recognized in <i>Net income</i>	54	75	2	2
Remeasurements⁽¹⁾				
Actuarial (gains) losses on defined benefit obligation	(910)	(482)	(23)	(14)
Return on plan assets ⁽²⁾	699	124		
Remeasurements recognized in <i>Other comprehensive income</i>	(211)	(358)	(23)	(14)
	(157)	(283)	(21)	(12)

(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 14 – Income Taxes

In its April 7, 2022 budget, the Government of Canada proposed to introduce tax measures applicable to certain entities of banking and life insurer groups. These measures included the “Canada Recovery Dividend” (a one-time, 15% tax on the fiscal 2021 taxable income) and a 1.5% increase in the statutory tax rate. Since these proposed tax measures were not substantively enacted at the reporting date, no amount has been recognized in the Bank’s consolidated financial statements as at April 30, 2022.

Note 15 – 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	
	2022	2021	2022	2021
Basic earnings per share				
Net income attributable to the Bank's shareholders and holders of other equity instruments	894	801	1,826	1,562
Dividends on preferred shares and distributions on other equity instruments	25	33	51	66
Net income attributable to common shareholders	869	768	1,775	1,496
Weighted average basic number of common shares outstanding (<i>thousands</i>)	337,381	337,142	337,724	336,769
Basic earnings per share (<i>dollars</i>)	2.58	2.28	5.26	4.44
Diluted earnings per share				
Net income attributable to common shareholders	869	768	1,775	1,496
Weighted average basic number of common shares outstanding (<i>thousands</i>)	337,381	337,142	337,724	336,769
Adjustment to average number of common shares (<i>thousands</i>)				
Stock options ⁽¹⁾	4,037	3,472	4,126	2,869
Weighted average diluted number of common shares outstanding (<i>thousands</i>)	341,418	340,614	341,850	339,638
Diluted earnings per share (<i>dollars</i>)	2.55	2.25	5.19	4.40

(1) For the quarter and six-month period ended April 30, 2022, as the exercise price of the options was lower than the average price of the Bank's common shares, no options were excluded from the diluted earnings per share calculation (no options were excluded from the diluted earnings per share calculation for the quarter and six-month period ended April 30, 2021).

Note 16 – 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. The presentation of segment disclosures is consistent with the presentation adopted by the Bank for the fiscal year beginning November 1, 2021. This presentation reflects the fact that the loan portfolio of borrowers in the "Oil and gas, and pipelines" sector and related activities, which had been reported in the Personal and Commercial segment, are now reported in the Financial Markets segment. The Bank made this change to better align the monitoring of its activities with its management structure.

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.

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

The USSF&I segment encompasses the specialty finance expertise provided by the Credigy Ltd. subsidiary; the activities of the Advanced Bank of Asia Limited 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; the activities of the Flinks subsidiary, which offers fintech services; certain specified items; and the unallocated portion of corporate units.

Quarter ended April 30 ⁽¹⁾												
	Personal and Commercial		Wealth Management		Financial Markets		USSF&I		Other		Total	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Net interest income ⁽²⁾	670	617	127	111	355	302	277	215	(116)	(89)	1,313	1,156
Non-interest income ⁽²⁾	292	265	452	430	277	285	8	22	97	80	1,126	1,082
Total revenues	962	882	579	541	632	587	285	237	(19)	(9)	2,439	2,238
Non-interest expenses	525	484	349	316	255	229	88	77	76	93	1,293	1,199
Income before provisions for credit losses and income taxes	437	398	230	225	377	358	197	160	(95)	(102)	1,146	1,039
Provisions for credit losses	11	(17)	–	2	(16)	21	9	(1)	(1)	–	3	5
Income before income taxes (recovery)	426	415	230	223	393	337	188	161	(94)	(102)	1,143	1,034
Income taxes (recovery) ⁽²⁾	113	110	61	59	104	89	36	32	(64)	(57)	250	233
Net income	313	305	169	164	289	248	152	129	(30)	(45)	893	801
Non-controlling interests	–	–	–	–	–	–	–	–	(1)	–	(1)	–
Net income attributable to the Bank's shareholders and holders of other equity instruments	313	305	169	164	289	248	152	129	(29)	(45)	894	801
Average assets	137,838	123,728	8,125	6,976	149,029	148,137	18,230	15,894	71,617	66,210	384,839	360,945

Six months ended April 30 ⁽¹⁾												
	Personal and Commercial		Wealth Management		Financial Markets		USSF&I		Other		Total	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Net interest income ⁽³⁾	1,339	1,246	246	220	753	638	547	434	(240)	(175)	2,645	2,363
Non-interest income ⁽³⁾	581	517	925	839	541	547	23	77	190	119	2,260	2,099
Total revenues	1,920	1,763	1,171	1,059	1,294	1,185	570	511	(50)	(56)	4,905	4,462
Non-interest expenses	1,057	980	701	621	515	460	168	160	129	158	2,570	2,379
Income before provisions for credit losses and income taxes	863	783	470	438	779	725	402	351	(179)	(214)	2,335	2,083
Provisions for credit losses	6	28	–	–	(32)	41	27	17	–	–	1	86
Income before income taxes (recovery)	857	755	470	438	811	684	375	334	(179)	(214)	2,334	1,997
Income taxes (recovery) ⁽³⁾	227	200	125	116	215	181	75	69	(133)	(131)	509	435
Net income	630	555	345	322	596	503	300	265	(46)	(83)	1,825	1,562
Non-controlling interests	–	–	–	–	–	–	–	–	(1)	–	(1)	–
Net income attributable to the Bank's shareholders and holders of other equity instruments	630	555	345	322	596	503	300	265	(45)	(83)	1,826	1,562
Average assets	137,050	122,159	8,130	6,753	153,467	150,326	18,100	15,717	70,135	64,550	386,882	359,505

- (1) For the quarter and six-month period ended April 30, 2021, certain amounts have been reclassified, in particular amounts of the loan portfolio of borrowers in the "Oil and gas, and pipelines" sector and related activities, which were transferred from the Personal and Commercial segment to the Financial Markets segment.
- (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 in grossing up certain tax-exempt income by the amount of income tax that would have otherwise been payable. For the business segments as a whole, *Net interest income* was grossed up by \$49 million (\$42 million in 2021), *Non-interest income* was grossed up by \$3 million (\$2 million in 2021), and an equivalent amount was recognized in *Income taxes (recovery)*. The effect of these adjustments is reversed under the *Other* heading.
- (3) For the six-month period ended April 30, 2022, *Net interest income* was grossed up by \$109 million (\$96 million in 2021), *Non-interest income* was grossed up by \$7 million (\$5 million in 2021), and an equivalent amount was recognized in *Income taxes (recovery)*. The effect of these adjustments has been reversed under the *Other* heading.

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 2022

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

First quarter	February 25
Second quarter	May 27
Third quarter	August 24
Fourth quarter	November 30

Disclosure of Second Quarter 2022 Results

Conference Call

- A conference call for analysts and institutional investors will be held on Friday, May 27, 2022 at 11:00 a.m. EDT.
- Access by telephone in listen-only mode: 1-800-806-5484 or 416-340-2217. The access code is 7162964#.
- A recording of the conference call can be heard until June 27, 2022 by dialing 1-800-408-3053 or 905-694-9451. The access code is 7227448#.

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 on the morning of 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 holders of its common and preferred shares under which they can acquire common shares of the Bank without paying commissions or administration fees. 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).





**FORM 52-109F2
CERTIFICATION OF INTERIM FILINGS
FULL CERTIFICATE**

I, Laurent Ferreira, President and Chief Executive Officer of National Bank of Canada, certify the following:

1. **Review:** I have reviewed the interim financial report and interim MD&A (together, the “interim filings”) of National Bank of Canada (the “issuer”) for the interim period ended April 30, 2022.
2. **No misrepresentations:** Based on my knowledge, having exercised reasonable diligence, the interim filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, with respect to the period covered by the interim filings.
3. **Fair presentation:** Based on my knowledge, having exercised reasonable diligence, the interim financial report together with the other financial information included in the interim filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the interim filings.
4. **Responsibility:** The issuer’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in *Regulation 52-109 respecting Certification of Disclosure in Issuers’ Annual and Interim Filings* (c. V-1.1, r. 27), for the issuer.
5. **Design:** Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer’s other certifying officer(s) and I have, as at the end of the period covered by the interim filings
 - (a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that
 - (i) material information relating to the issuer is made known to us by others, particularly during the period in which the interim filings are being prepared; and
 - (ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and
 - (b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer’s GAAP.

- 5.1 **Control framework:** The control framework the issuer's other certifying officer(s) and I used to design the issuer's ICFR is that of the Committee of Sponsoring Organizations of the Treadway Commission (COSO-2013) (for the financial processes) and the Control Objectives for Information and Related Technologies (COBIT) (for the information technologies processes).
- 5.2 N/A
- 5.3 N/A
6. **Reporting changes in ICFR:** The issuer has disclosed in its interim MD&A any change in the issuer's ICFR that occurred during the period beginning on February 1, 2022 and ended on April 30, 2022 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

Date: May 27, 2022

(s) *Laurent Ferreira*

Signature: Laurent Ferreira

Title: President and Chief Executive Officer



**FORM 52-109F2
CERTIFICATION OF INTERIM FILINGS
FULL CERTIFICATE**

I, Marie Chantal Gingras, Chief Financial Officer and Executive Vice-President, Finance of National Bank of Canada, certify the following:

1. **Review:** I have reviewed the interim financial report and interim MD&A (together, the “interim filings”) of National Bank of Canada (the “issuer”) for the interim period ended April 30, 2022.
2. **No misrepresentations:** Based on my knowledge, having exercised reasonable diligence, the interim filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, with respect to the period covered by the interim filings.
3. **Fair presentation:** Based on my knowledge, having exercised reasonable diligence, the interim financial report together with the other financial information included in the interim filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the interim filings.
4. **Responsibility:** The issuer’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in *Regulation 52-109 respecting Certification of Disclosure in Issuers’ Annual and Interim Filings* (c. V-1.1, r. 27), for the issuer.
5. **Design:** Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer’s other certifying officer(s) and I have, as at the end of the period covered by the interim filings
 - (a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that
 - (i) material information relating to the issuer is made known to us by others, particularly during the period in which the interim filings are being prepared; and
 - (ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and
 - (b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer’s GAAP.

- 5.1 **Control framework:** The control framework the issuer's other certifying officer(s) and I used to design the issuer's ICFR is that of the Committee of Sponsoring Organizations of the Treadway Commission (COSO-2013) (for the financial processes) and the Control Objectives for Information and Related Technology (COBIT) (for the information technologies processes).
- 5.2 N/A
- 5.3 N/A
6. **Reporting changes in ICFR:** The issuer has disclosed in its interim MD&A any change in the issuer's ICFR that occurred during the period beginning on February 1, 2022 and ended on April 30, 2022 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

Date: May 27, 2022

(s) *Marie Chantal Gingras*

Signature: Marie Chantal Gingras
Title: Chief Financial Officer and
Executive Vice-President, Finance