UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 40-F

[Check one]

☐ **REGISTRATION STATEMENT PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934**

or

☒ **ANNUAL REPORT PURSUANT TO SECTION 13(a) OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended October 31, 2021

Commission File Number 002-09048

THE BANK OF NOVA SCOTIA
(Exact name of Registrant as specified in its charter)

CANADA
(Province or other jurisdiction of incorporation or organization)

6029
(Primary Standard Industrial Classification Code Number (if applicable))

Not Applicable
(I.R.S. Employer Identification Number (if applicable))

44 King St. West, Scotia Plaza, 8th floor,
Toronto, Ontario, Canada M5H 1H1
(416) 866-3672
(Address and telephone number of Registrant's principal executive offices)

The Bank of Nova Scotia, 250 Vesey Street,
New York, N.Y., U.S.A. 10281
Attention: Hector Becil
(212) 225-5000
(Name, address (including zip code) and telephone number (including area code) of agent for service in the United States)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Shares	BNS	New York Stock Exchange Toronto Stock Exchange

Securities registered or to be registered pursuant to Section 12(g) of the Act.

Not applicable
(Title of Class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

Not applicable
(Title of Class)

For annual reports, indicate by check mark the information filed with this Form:

☒ **Annual information form** ☒ **Audited annual financial statements**

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

Common Shares	1,215,337,523
Preferred Shares, Series 38 (Non-Viability Contingent Capital)	20,000,000
Preferred Shares, Series 40 (Non-Viability Contingent Capital)	12,000,000

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days.

Yes ☒ No ☐

Indicate by check mark whether the Registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit such files).

Yes ☒ No ☐

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 12b-2 of the Exchange Act.

Emerging growth company ☐

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

† The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

DISCLOSURE CONTROLS AND PROCEDURES

Management's responsibility for financial information contained in the Annual Report is described on page 146 of Exhibit 99.3, 2021 Consolidated Financial Statements. In addition, the Bank's Audit and Conduct Review Committee of the Board of Directors has reviewed, and the Board of Directors has reviewed and approved, the 2021 Consolidated Financial Statements and Management's Discussion and Analysis prior to release. Scotiabank is committed to providing timely, accurate and balanced disclosure of all material information and to providing fair and equal access to such information. The Bank's disclosure policies and practices are published on its website.

Disclosure Controls and Procedures

The Bank's disclosure controls and procedures are designed to provide reasonable assurance that information is accumulated and communicated to the Bank's management, including the Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), as appropriate, to allow timely decisions regarding required disclosure.

As of October 31, 2021, the Bank's management, with the participation of the CEO and CFO, evaluated the effectiveness of its disclosure controls and procedures, as defined under the rules adopted by the United States Securities and Exchange Commission ("SEC") and the Canadian securities regulatory authorities, and have concluded that the Bank's disclosure controls and procedures are effective.

Internal control over financial reporting

Management of the Bank is responsible for establishing and maintaining adequate internal control over financial reporting. These controls include policies and procedures that: (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Bank; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board, and that receipts and expenditures are being made only in accordance with authorizations of management and directors of the Bank; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Bank's assets that could have a material effect on the financial statements.

All control systems contain inherent limitations, no matter how well designed. As a result, the Bank's management acknowledges that its internal control over financial reporting will not prevent or detect all misstatements due to error or fraud. In addition, management's evaluation of controls can provide only reasonable, not absolute, assurance that all control issues that may result in material misstatements, if any, have been detected.

Management assessed the effectiveness of internal control over financial reporting, using the Committee of Sponsoring Organizations of the Treadway Commission (COSO) 2013 framework, and based on that assessment concluded that internal control over financial reporting was effective as of October 31, 2021.

Changes in internal control over financial reporting

There have been no changes in the Bank's internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the Bank's internal control over financial reporting during the year ended October 31, 2021.

MANAGEMENT'S INTERNAL CONTROL OVER FINANCIAL REPORTING

Management's Report on Internal Control over Financial Reporting and the Report of Independent Registered Public Accounting Firm are provided in Exhibit 99.4.

AUDIT COMMITTEE FINANCIAL EXPERTS

All of the members of the Bank's Audit and Conduct Review Committee of the Board of Directors ("audit committee") are financially literate and independent, and one or more members of the audit committee meets the definition of a financial expert. The Bank's Board of Directors has determined that Una M. Power, Aaron W. Regent and Benita M. Warmbold are audit committee financial experts and are independent, as that term is defined by the New York Stock Exchange's corporate governance standards applicable to the Bank.

The SEC has indicated that the designation of a person as an audit committee financial expert does not impose on such person any duties, obligations or liability that are greater than the duties, obligations and liability imposed on such person as a member of the audit committee and board of directors in the absence of such designation.

CODE OF ETHICS

The Bank has adopted a code of ethics, entitled "Scotiabank Code of Conduct" (the "Code "). The Code has been in place for many years and applies to all directors, officers, employees and contingent workers of the Bank. A copy of the Code was most recently filed as an exhibit to Form 6-K filed with the SEC (EDGAR Company Filings) on November 30, 2021. The Code is also available on the Bank's website at www.scotiabank.com, in the Governance section, and is available in print to any person, without charge, upon written request to the Corporate Secretary of the Bank at the Toronto executive office address shown above. A supplement to the Code, the Whistleblower Policy and Procedures, is also posted on the Bank's website. Amendments to the Code and waivers, if any, for directors and executive officers will be disclosed on the Bank's website. There were no such waivers under the Code granted in fiscal 2021.

PRINCIPAL ACCOUNTANT FEES AND SERVICES

The disclosure provided in Table 81 "Fees paid to the shareholders' auditors" on page 133 of Exhibit 99.2, Management's Discussion and Analysis, is incorporated by reference herein. The nature of these services is as follows:

- Audit services generally relate to the statutory audits and review of financial statements, regulatory required attestation reports, as well as services associated with registration statements, prospectuses, periodic reports and other documents filed with securities regulatory bodies or other documents issued in connection with securities offerings.
- Audit-related services include special attest services not directly linked to the financial statements, review of controls and procedures related to regulatory reporting, audits of employee benefit plans and consultation and training on accounting and financial reporting.
- Tax services outside of the audit scope relate primarily to specified review procedures required by local tax authorities, attestation on tax returns of certain subsidiaries as required by local tax authorities, and review to determine compliance with an agreement with the tax authorities.
- Other non-audit services are primarily for the review and translation of English language financial statements into other languages and other services.

None of the above services were approved pursuant to an exemption under paragraph (c)(7)(i)(C) of Rule 2-01 of Regulation S-X from the requirement that the audit committee pre-approve the services. The majority of the hours expended on the audits of the 2021 and 2020 consolidated financial statements were attributable to work performed by the full-time permanent employees of the Bank's independent auditors, KPMG LLP or its affiliates. The audit committee's pre-approval policies and procedures, as revised effective March 5, 2007, were attached as Exhibit 7 to

the Form 40-F filed on December 19, 2007 for the fiscal year ended October 31, 2007. The pre-approval policies and procedures have been subsequently approved without any major changes at each annual review.

OFF-BALANCE SHEET ARRANGEMENTS

The disclosure provided under “Off-balance Sheet Arrangements” on pages 74 to 76 and “Structured entities” on pages 74 to 75 of Exhibit 99.2, Management’s Discussion and Analysis, is incorporated by reference herein. Additional information from note 3 on pages 159 to 173, note 7 on pages 175 to 180, note 10 on pages 183 to 191, note 14 on pages 204 to 205, note 15 on pages 205 to 207, note 23 on page 213, note 24 on pages 213 to 216, note 35 on pages 232 to 233 and note 36 on pages 233 to 241 of Exhibit 99.3, 2021 Consolidated Financial Statements, is incorporated by reference into “Off-balance Sheet Arrangements” in Management’s Discussion and Analysis.

CONTRACTUAL OBLIGATIONS

The disclosure provided under “Contractual maturities and obligations” on pages 110 to 112 of Exhibit 99.2, Management’s Discussion and Analysis, is incorporated by reference herein. Additional information from note 7 on pages 175 to 180, note 20 on page 211, note 28 on pages 221 to 225, note 35 on pages 232 to 233 and note 36 on pages 233 to 241 of Exhibit 99.3, 2021 Consolidated Financial Statements, is incorporated by reference into “Contractual Obligations” in Management’s Discussion and Analysis.

IDENTIFICATION OF THE AUDIT COMMITTEE

The Bank’s audit committee is composed of the following directors: Una M. Power (Chair and financial expert), Scott B. Bonham, Lynn K. Patterson, Michael D. Penner, Aaron W. Regent (financial expert), Calin Rovinescu, Susan L. Segal and Benita M. Warmbold (financial expert).

SUMMARY OF SIGNIFICANT CORPORATE GOVERNANCE DIFFERENCES

A summary of significant ways corporate governance practices followed by the Bank differ from corporate governance practices required to be followed by U.S. domestic companies under the New York Stock Exchange’s listing standards (disclosure required by Section 303A.11 of the NYSE Listed Company Manual) is available on the Bank’s website at https://www.scotiabank.com/ca/en/about/our-company/governance.html.

Undertaking

Registrant undertakes to make available, in person or by telephone, representatives to respond to inquiries made by the Commission staff, and to furnish promptly, when requested to do so by the Commission staff, information relating to: the securities registered pursuant to Form 40-F; the securities in relation to which the obligation to file an annual report on Form 40-F arises; or transactions in said securities.

Signatures

Pursuant to the requirements of the Exchange Act, the Registrant certifies that it meets all of the requirements for filing on Form 40-F and has duly caused this annual report to be signed on its behalf by the undersigned, thereto duly authorized.

Registrant: **THE BANK OF NOVA SCOTIA**

By: /s/ Rajagopal Viswanathan
Name: Rajagopal Viswanathan
Title: Group Head and Chief Financial Officer

Date: November 30, 2021

EXHIBIT INDEX

Exhibit No.	Description
99.1	Annual Information Form dated November 30, 2021
99.2	Management's Discussion and Analysis (pages 14 through 139 of the 2021 Annual Report)
99.3	2021 Consolidated Financial Statements (pages 145 through 242 of the 2021 Annual Report)
99.4	Management's Report on Internal Control over Financial Reporting and Report of Independent Registered Public Accounting Firm (page 140 of the 2021 Annual Report)
99.5	Corporate Governance
99.6	Consent of Independent Registered Public Accounting Firm
99.7	Certifications required by Rule 13a-14(a) or Rule 15d-14(a), pursuant to Section 302 of the U.S. Sarbanes-Oxley Act of 2002
99.8	Certifications required by Rule 13a-14(b) or Rule 15d-14(b) and 18 U.S.C. Section 1350, as enacted pursuant to Section 906 of the U.S. Sarbanes-Oxley Act of 2002
101	Interactive Data File
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

Exhibit 99.1

The Bank of Nova Scotia

ANNUAL INFORMATION FORM

NOVEMBER 30, 2021



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INFORMATION IS AT OCTOBER 31, 2021, UNLESS OTHERWISE NOTED.

Distribution Notice

When this Annual Information Form is provided to security holders or other interested parties, it must be accompanied by copies of all the documents (or excerpts thereof) incorporated herein by reference. Portions of this Annual Information Form of The Bank of Nova Scotia (the "Bank", "Scotiabank", "we" or "our") dated November 30, 2021 (the "AIF"), are disclosed in the Management's Discussion and Analysis for the year ended October 31, 2021 (the "MD&A"). The MD&A is also available on SEDAR at www.sedar.com.

Financial Data

Except as otherwise noted, all information is given at or for the year ended October 31, 2021. Amounts are expressed in Canadian dollars. Financial information is presented in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board, unless otherwise noted.

Forward-looking Statements

From time to time, our public communications often include oral or written forward-looking statements. Statements of this type are included in this document, and may be included in other filings with Canadian securities regulators or the U.S. Securities and Exchange Commission ("SEC"), or in other communications. In addition, representatives of the Bank may include forward-looking statements orally to analysts, investors, the media and others. All such statements are made pursuant to the "safe harbor" provisions of the U.S. Private Securities Litigation Reform Act of 1995 and any applicable Canadian securities legislation. Forward-looking statements may include, but are not limited to, statements made in this document, the Management's Discussion and Analysis in the Bank's 2021 Annual Report under the headings "Outlook" and in other statements regarding the Bank's objectives, strategies to achieve those objectives, the regulatory environment in which the Bank operates, anticipated financial results, and the outlook for the Bank's businesses and for the Canadian, U.S. and global economies. Such statements are typically identified by words or phrases such as "believe," "expect," "foresee," "forecast," "anticipate," "intend," "estimate," "plan," "goal," "project," and similar expressions of future or conditional verbs, such as "will," "may," "should," "would" and "could."

By their very nature, forward-looking statements require us to make assumptions and are subject to inherent risks and uncertainties, which give rise to the possibility that our predictions, forecasts, projections, expectations or conclusions will not prove to be accurate, that our assumptions may not be correct and that our financial performance objectives, vision and strategic goals will not be achieved.

We caution readers not to place undue reliance on these statements as a number of risk factors, many of which are beyond our control and effects of which can be difficult to predict, could cause our actual results to differ materially from the expectations, targets, estimates or intentions expressed in such forward-looking statements.

The future outcomes that relate to forward-looking statements may be influenced by many factors, including but not limited to: general economic and market conditions in the countries in which we operate; changes in currency and interest rates; increased funding costs and market volatility due to market illiquidity and competition for funding; the failure of third parties to comply with their obligations to the Bank and its affiliates; changes in monetary, fiscal, or economic policy and tax legislation and interpretation; changes in laws and regulations or in supervisory expectations or requirements, including capital, interest rate and liquidity requirements and guidance, and the effect of such changes on funding costs; changes to our credit ratings; operational and infrastructure risks; reputational risks; the accuracy and completeness of information the Bank receives on customers and counterparties; the timely development and introduction of new products and services, and the extent to which products or services previously sold by the Bank require the Bank to incur liabilities or absorb losses not contemplated at their origination; our ability to execute our strategic plans, including the successful completion of acquisitions and dispositions, including obtaining regulatory approvals; critical accounting estimates and the effect of changes to accounting standards, rules and interpretations on these estimates; global capital markets activity; the Bank's ability to attract, develop and retain key executives; the evolution of various types of fraud or other criminal behaviour to which the Bank is exposed; disruptions in or attacks (including cyber-attacks) on the Bank's information technology, internet, network access, or other voice or data communications systems or services; increased competition in the geographic and in business areas in which we operate, including through internet and mobile banking and non-traditional competitors; exposure related to significant litigation and regulatory matters; climate change and other environmental and social risks, including sustainability that may arise, including from the Bank's business activities; the occurrence of natural and unnatural catastrophic events and claims resulting from such events; the emergence of widespread health emergencies or pandemics,

including the magnitude and duration of the COVID-19 pandemic and its impact on the global economy, financial market conditions and the Bank's business, results of operations, financial condition and prospects; and the Bank's anticipation of and success in managing the risks implied by the foregoing. A substantial amount of the Bank's business involves making loans or otherwise committing resources to specific companies, industries or countries. Unforeseen events affecting such borrowers, industries or countries could have a material adverse effect on the Bank's financial results, businesses, financial condition or liquidity. These and other factors may cause the Bank's actual performance to differ materially from that contemplated by forward-looking statements. The Bank cautions that the preceding list is not exhaustive of all possible risk factors and other factors could also adversely affect the Bank's results, for more information, please see the "Risk Management" section of the Bank's 2021 Annual Report, as may be updated by quarterly reports.

Material economic assumptions underlying the forward-looking statements contained in this document are set out in the 2021 Annual Report under the headings "Outlook", as updated by quarterly reports. The "Outlook" sections are based on the Bank's views and the actual outcome is uncertain. Readers should consider the above-noted factors when reviewing these sections. When relying on forward-looking statements to make decisions with respect to the Bank and its securities, investors and others should carefully consider the preceding factors, other uncertainties and potential events.

Any forward-looking statements contained in this document represent the views of management only as of the date hereof and are presented for the purpose of assisting the Bank's shareholders and analysts in understanding the Bank's financial position, objectives and priorities, and anticipated financial performance as at and for the periods ended on the dates presented, and may not be appropriate for other purposes. 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 or on its behalf.

Additional information relating to the Bank can be located on the SEDAR website at www.sedar.com and on the EDGAR section of the SEC's website at www.sec.gov.

CORPORATE STRUCTURE

Name, Address and Place of Incorporation

The Bank was granted a charter under the laws of the Province of Nova Scotia in 1832 and commenced operations in Halifax, Nova Scotia in that year. Since 1871, the Bank has been a chartered bank under the *Bank Act* (Canada) (the "Bank Act"). The Bank is a Schedule I bank under the Bank Act and the Bank Act is its charter. The head office of the Bank is located at 1709 Hollis Street, Halifax, Nova Scotia, B3J 1W1 and its executive offices are at Scotia Plaza, 44 King Street West, Toronto, Ontario, M5H 1H1. A copy of the Bank's by-laws is available on www.sedar.com.

Intercorporate Relationships

Each international principal subsidiary of the Bank is incorporated or established and existing under the laws of the jurisdiction in which its principal office is located, with the exception of Scotia Holdings (US) Inc. which is incorporated and existing under the laws of the State of Delaware. Each Canadian principal subsidiary of the Bank is incorporated or established and existing under the laws of Canada, with the exception of: 1832 Asset Management L.P., Scotia Capital Inc. and Scotia Securities Inc. which are incorporated or established and existing under the laws of the Province of Ontario.

The Bank's principal subsidiaries are listed on Schedule A.

GENERAL DEVELOPMENT OF THE BANK'S BUSINESS

Three-Year History

As reported in accordance with IFRS, for the fiscal year ended October 31, 2021, the Bank's net income attributable to common shareholders was $9,391 million, up from $6,582 million in 2020. The Bank's net income attributable to common shareholders was $8,208 million in 2019. Earnings per share (on a diluted basis) for the fiscal year ended October 31, 2021 was $7.70 compared to $5.30 in 2020 and $6.68 in 2019.

Return on equity for the fiscal year ended October 31, 2021 was 14.7%, compared to 10.4% in 2020 and 13.1% in 2019. In fiscal 2021, the Bank's actual dividend payout ratio was 46.5% compared to 66.3% in 2020 and 51.9% in 2019.

For additional information on the Bank's businesses, see the descriptions provided below and on pages 45 to 58 of the MD&A.

Certain acquisitions and dispositions that have influenced the general development of the Bank's business over the past three years are summarized below, for additional information on acquisitions and divestitures, see note 37 to the Bank's consolidated financial statements for the year ended October 31, 2021.

On September 1, 2021, the Bank announced that it has completed the sale of its banking operations in Antigua and Barbuda to Eastern Caribbean Amalgamated Bank Limited.

On May 12, 2021, the Bank increased its ownership in Scotiabank Chile through the acquisition of an additional 7.0% stake from the non-controlling shareholder for $481 million, resulting in ownership of 83% in Scotiabank Chile.

On March 31, 2021, the Bank completed the sale of its 100% interest in Scotiabank (Belize) Ltd. to Caribbean Investment Holdings Limited.

On March 3, 2021, the Bank announced that it has entered into an agreement to sell its banking operations in Guyana to First Citizens Bank Limited.

On May 31, 2020, the Bank completed the sale of its banking operations in the British Virgin Islands to Republic Financial Holdings Limited.

On January 31, 2020, the Bank completed the sale of its banking and insurance operations in El Salvador, including Scotiabank El Salvador, its subsidiaries and Scotia Seguros to Imperia Intercontinental Inc.

On December 31, 2019, the Bank completed the sale of its operations in Puerto Rico and the U.S. Virgin Islands ("USVI") to Oriental Bank, a subsidiary of OFG Bancorp.

On December 3, 2019, the Bank completed the sale to reduce its 49% interest in Thanachart Bank Public Company Limited ("TBank") in Thailand, upon receiving regulatory approvals and satisfying closing conditions. As part of agreements entered into with ING Groep N.V., TBank, Thanachart Capital Public Co., Ltd. and TMB Bank Public Company Limited ("TMB") in August 2019, the Bank sold its 49% interest in TBank in exchange for cash and an approximately 6% ownership interest in the form of common shares in TMB. As per the agreements, TBank became a wholly-owned subsidiary of TMB.

On October 31, 2019, the Bank completed the sale of its banking operations in Anguilla, Dominica, Grenada, St. Kitts & Nevis, St. Lucia, St. Maarten and St. Vincent & the Grenadines to Republic Financial Holdings Limited.

On April 30, 2019, the Bank completed the sale of Scotia Crecer AFP and Scotia Seguros, its pension and related insurance businesses in the Dominican Republic to Grupo Rizek.

On March 1, 2019, the Bank acquired 97.44% of the voting shares of Banco Dominicano del Progreso, a bank with operations in Dominican Republic in exchange for total consideration of $440 million in cash. The acquired business forms part of the International Banking business segment.

DESCRIPTION OF THE BANK'S BUSINESS

General Summary

Scotiabank is a leading bank in the Americas. We help our customers, their families and their communities achieve success through a broad range of advice, products and services, including personal and commercial banking, wealth management and private banking, corporate and investment banking, and capital markets.

For the year ended October 31, 2021, the Bank's four business operating segments are: Canadian Banking, International Banking, Global Banking and Markets and Global Wealth Management.

Canadian Banking provides a full suite of financial advice and banking solutions, supported by an excellent customer experience, to over 10 million Retail, Small Business and Commercial Banking customers. It serves these customers through its network of 954 branches and 3,766 automated banking machines (ABMs), as well as online, mobile and telephone banking, and specialized sales teams. Canadian Banking also provides an alternative self directed banking solution to over 2 million Tangerine Bank customers.

International Banking is a strong and diverse franchise with nearly 10 million Retail, Corporate and Commercial customers. The geographical footprint encompasses the Pacific Alliance countries of Mexico, Colombia, Peru and Chile, as well as Central America, the Caribbean and Uruguay. The Bank is well positioned in the Pacific Alliance, providing the connectivity to do business across the Americas through Corporate Banking and Digital leadership. Our core markets in the Pacific Alliance countries demonstrate attractive demographics, opportunity to grow banking penetration, and strong connectivity with Canada and the U.S.

Global Banking and Markets ("GBM") provides corporate clients with lending and transaction services, investment banking advice and access to capital markets. GBM is a full-service wholesale bank in the Americas, with operations in 21 countries, serving clients across Canada, the United States, Latin America, Europe and Asia-Pacific.

Global Wealth Management is focused on delivering comprehensive wealth management advice and solutions to clients across the Bank's footprint. Global Wealth Management serves over 2 million investment fund and advisory clients across 13 countries – administering over $500 billion in assets.

A more complete description of services provided by each of the Bank's major business lines is available in the MD&A, on pages 45 to 58 inclusive, and those pages are herein incorporated by reference.

Competition

The Canadian banking system consists of numerous banks and other financial institutions. Certain large Canadian banks are required by law to be widely held because their equity exceeds a threshold of $12 billion. These banks compete nationwide through extensive branch networks, ABMs, telephone, internet and mobile banking offerings. In total, the Canadian system includes 36 domestic banks, 28 foreign banks and more than 300 credit unions and caisses populaires. More broadly, the Canadian financial services industry includes thousands of institutions such as life insurance companies, property and casualty insurers, consumer finance companies, independent investment dealers and independent retail mutual fund management companies.

Competition is reflected in the range of products and services offered, innovation in features, services, technology and delivery, as well as the various pricing schemes adopted. Additionally, a greater number of service providers in the Canadian marketplace are offering alternative channels and competition in the payments space. The increased number of new entrants into the financial services sector in recent years has also underscored an enhanced level of competition.

Scotiabank is a financial services provider in the Americas. In providing these services and products, the Bank competes with local and international banks and other financial institutions.

Supervision and Regulation in Canada

As a Canadian Schedule I Bank, the Bank's activities in Canada are governed by the Bank Act, which is one of four main federal statutes governing the financial services industry in Canada. The other three statutes cover trust and loan companies, insurance companies and co-operative credit associations.

In accordance with the Bank Act, an organization may engage in and carry on the business of banking and such business generally as pertains to the business of banking. The Bank Act grants Canadian chartered banks broad powers of investment in the securities of other corporations and entities, but imposes limits upon substantial investments. Under the Bank Act, generally a bank has a substantial investment in a body corporate when (a) voting rights attached to the voting shares beneficially owned by the bank and by entities controlled by the bank exceed 10% of the voting rights attached to the outstanding voting shares of the body corporate, or (b) the total number of shares of the body corporate that are beneficially owned by the bank and entities controlled by the bank represent more than 25% of the total shareholders' equity of the body corporate. In addition, under the Bank Act, a bank has a substantial investment in an unincorporated entity where the

ownership interests in such entity beneficially owned by that bank and by entities controlled by that bank exceed 25% of all ownership interests in such entity. A Canadian chartered bank is permitted to have a substantial investment in entities whose activities are consistent with those of certain prescribed permitted substantial investments. In general, a bank will be permitted to invest in an entity that carries on any financial services activity. Further, a bank may generally invest in entities that carry on commercial activities that are related to the promotion, sale, delivery or distribution of a financial product or service. A bank may also invest in entities that provide professional investment management to closed-end funds and mutual funds, engage in the distribution of mutual funds and provide consulting and agency services for real property or service financial institutions and the bank may have downstream holding companies to hold these investments. In certain cases, the approval of the Minister of Finance (the "Minister") or the Superintendent of Financial Institutions Canada (the "Superintendent") is required prior to making the investment and/or the bank is required to control the entity. Canadian chartered banks may offer through their branch network credit or charge-card related insurance, creditors' disability insurance, creditors' life insurance, creditors' loss of employment insurance, creditors' vehicle inventory insurance, export credit insurance, mortgage insurance and travel insurance. Outside bank branches, a bank may offer insurance only in the limited circumstances prescribed by the Bank Act.

Without Minister approval, no person or group of associated persons may own more than 10% of any class of shares of the Bank. No person may be a major shareholder of a bank if the bank has equity of $12 billion or more (which includes the Bank). A person is a major shareholder of a bank if: (a) the aggregate of shares of any class of voting shares beneficially owned by that person and that are beneficially owned by any entities controlled by that person is more than 20% of that class of voting shares; or (b) the aggregate of shares of any class of non-voting shares beneficially owned by that person and that are beneficially owned by any entities controlled by that person is more than 30% of that class of non-voting shares. Ownership of the Bank's shares by Canadian or foreign governments is prohibited under the Bank Act. However, in 2009 certain amendments were made to the Bank Act that provide for limited circumstances in which the Canadian federal government may be permitted to acquire shares of a bank, including the Bank, if the Minister and Governor in Council were to conclude that to do so would promote stability in the financial system. While the government holds any shares of a bank, including the Bank, the Minister may impose certain terms and conditions, including conditions on the payment by the Bank of dividends on any of its shares.

The Superintendent is responsible to the Minister for the administration of the Bank Act. The Superintendent is required to make an annual examination of each bank to ensure compliance with the Bank Act and to ensure that each bank is in sound financial condition. The report of the Superintendent's examination is submitted to the Minister. The Bank is also required to disclose certain financial information. The Bank is subject to regulation by the Canada Deposit Insurance Corporation and the Financial Consumer Agency of Canada, and the activities of the Bank in Canada are subject to various other federal statutory provisions, including the *Proceeds of Crime (Money Laundering) and Terrorist Financing Act* which applies to all of the Bank's businesses in Canada. The activities of the Bank's trust subsidiaries and insurance subsidiaries are regulated in Canada under the *Trust and Loan Companies Act* and the *Insurance Companies Act*, respectively, and under provincial laws in respect of their activities in the provinces. Certain activities of the Bank and its subsidiaries acting as securities brokers, dealers (including investment and mutual fund dealers), underwriters and advisors (including investment counsel and portfolio managers) are regulated in Canada under provincial securities legislation and, in some cases, by self-regulatory organizations, such as the Investment Industry Regulatory Organization of Canada for broker dealers and the Mutual Fund Dealers Association for mutual fund dealers.

Bank Recapitalization (Bail-In) Regime

On September 23, 2018, the regulations under the *Canada Deposit Insurance Corporation Act* (Canada) (the "CDIC Act") and the Bank Act (collectively, the "Bail-In Regulations") which provides the details of conversion, issuance and compensation regimes for bail-in instruments issued by domestic systemically important banks, including the Bank, came into force. Pursuant to the CDIC Act, in circumstances where the Superintendent of Financial Institutions has determined that the Bank has ceased, or is about to cease, to be viable, the Governor in Council may, upon a recommendation of the Minister of Finance that he or she is of the opinion that it is in the public interest to do so, grant an order directing CDIC to convert all or a portion of certain shares and liabilities of the Bank into common shares of the Bank. For a description of the Canadian bank resolution powers and the consequent risk factors attaching to certain liabilities of the Bank reference is

made to the Bank's website under Regulatory Disclosures for Fixed Income Investors[1]. The information on our website does not form part of this Annual Information Form.

International Supervision and Regulation

Capital adequacy for Canadian banks is regulated by the Office of the Superintendent of Financial Institutions, Canada ("OSFI") and subject to the revised capital adequacy requirements as published by the Basel Committee on Banking Supervision (BCBS) and commonly referred to as Basel III. Additional information on the regulatory capital of the Bank and developments facing the Bank are described under the headings "Regulatory capital" and "Regulatory capital developments" on pages 62-63 of the MD&A, respectively, and those sections are incorporated herein by reference.

Automatic Exchange of Information

Under the initiative of the Organization for Economic Co-Operation and Development, many countries have committed to automatic exchange of information relating to accounts held by tax residents of signatory countries, using a Common Reporting Standard ("CRS"). Canada's automatic exchange of financial account information arrangements with jurisdictions, other than the U.S., has been implemented in accordance with the CRS and the implementation of the CRS legislation in Canada was effective July 1, 2017. The Bank meets all obligations imposed under the CRS, in accordance with local laws, in Canada and all applicable jurisdictions in which it operates.

Supervision and Regulation Outside Canada – Key Jurisdictions

United States

The activities of the Bank and its subsidiaries in the U.S. are subject to federal and state supervision, regulation and examination by bank regulatory and other governmental agencies. The Bank is subject to the Bank Holding Company Act of 1956 ("BHCA") and the International Banking Act of 1978 and associated regulations of the Board of Governors of the Federal Reserve System (the "Federal Reserve Board"). The Federal Reserve Board and other banking regulators oversee the operation of the Bank's branches, offices and subsidiaries in the U.S. The SEC, state securities regulators and self-regulatory organizations, such as the Financial Industry Regulatory Authority, regulate its broker-dealer subsidiary and the SEC, effective November 1, 2021, regulates the Bank's security-based swaps dealer business and the Commodity Futures Trading Commission ("CFTC") oversees the Bank's swaps and commodities trading and clearing businesses.

The Bank is a "financial holding company" under the BHCA. This status allows a broad range of financial activities to be undertaken in the U.S. Provisions of the Federal Reserve Act place certain limitations and restrictions on the transactions that the Bank's U.S. branch and agency can engage in with affiliates of the Bank.

The Bank, as a non-U.S. bank with U.S. operations, is required by U.S. anti-money laundering laws, to take certain steps to prevent, detect and report individuals and entities involved in international money laundering and the financing of terrorism. Failure of a financial institution to comply with these requirements could have serious legal and reputational consequences for the institution.

The Bank is also subject to the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"). Dodd-Frank Act reforms include heightened consumer protection, revised regulation of over-the-counter derivatives markets, restrictions on proprietary trading and the ownership and sponsorship of private investment funds by banks and their affiliates (referred to as the Volcker Rule), imposition of heightened prudential standards, and broader application of leverage and risk-based capital requirements. The Volcker Rule impacts our global activities as its reach extends to the Bank and each of its subsidiaries and affiliates (subject to certain exceptions and exclusions). The Bank has an enterprise wide compliance program to meet the requirements of the Volcker Rule, which became effective on July 21, 2015. During 2019, the five federal agencies responsible for overseeing the Volcker Rule passed certain changes to the Rule, which are not material to the Bank's operations.

[1] Visit webpage at https://www.scotiabank.com/ca/en/about/investors-shareholders/regulatory-disclosures/canadian-bank-resolution-powers-including-bail-in.html.

The Bank is subject to the enhanced prudential standards and early remediation requirements of sections 165 (implemented by Regulation YY) and 166 of the Dodd-Frank Act (the "FBO Rule") for bank holding companies and foreign banking organizations. With respect to foreign banking organizations, the overall intent of Section 165 and Regulation YY is to strengthen the regulation of the U.S. operations of foreign banking organizations by requiring home country capital certification consistent with the Basel capital framework, home country capital stress tests comparable to U.S. standards, maintenance of a liquidity buffer for U.S. branches and agencies and establishment of a U.S. risk committee with the appointment of a U.S. Chief Risk Officer. The Bank has a Chief Risk Officer for the U.S., a U.S. Risk Committee and complies with the FBO Rule. The Bank is not currently required to form a U.S. intermediate holding company under the FBO Rule. On October 2019, the Federal Reserve finalized its rules to further tailor the regulatory framework for enhanced prudential standards and the U.S. Basel III capital and liquidity requirements applicable to domestic banking organizations and foreign banking organizations (FBOs), with which the Bank is complying.

Mexico

Grupo Financiero Scotiabank Inverlat, S.A. de C.V. is an "affiliate holding company" pursuant to the Law for the Regulation of Financial Groups of Mexico and the Rules for the Establishment of Foreign Affiliate Financial Institutions of Mexico. The governing authority is the Ministry of Finance of Public Credit of Mexico and the supervising and regulatory authorities are the Central Bank of Mexico, the National Banking and Securities Commission and the National Commission for the Protection of the Users of Financial Services.

Peru

Scotiabank Peru S.A.A. is a "banking company" pursuant to the Law of the Banking System, Insurance and Private Pension Funds Administrators and applicable rules for financial groups enacted by the Superintendency of Banking System, Insurance and Private Pension Funds Administrators ("SBS") and the Superintendency of Securities Market ("SMV"). Beside SBS and SMV, the other governing authorities are the Central Bank of Peru, and the National Institution for the Defense of Competition and Intellectual Property, in charge, among other functions, of the protection of consumers of financial services.

Pursuant to SBS and SMV regulations on ownership and control of supervised companies, Scotiabank Peru S.A.A. also reports on its holding company shareholder Scotia Peru Holdings S.A.

Chile

Scotiabank Chile ("Scotiabank Chile") is a special stock corporation governed by the provisions of the General Banking Act and by the provisions applicable to listed corporations contained in the Corporations Act. It is supervised by the Financial Markets Commission (CMF), which is an autonomous institution related to the Chilean Government through the Ministry of Finance. Scotiabank Chile is also governed by the Central Bank of Chile and the National Consumer Service (Sernac), the latter being responsible for, among other functions, consumer protection with regards to financial services, in accordance with the provisions of the Financial Consumer Protection Act. Scotiabank Chile's subsidiaries are supervised by the CMF, according to their respective business lines.

Colombia

Scotiabank Colpatria S.A., a subsidiary of the Bank, is a bank incorporated in compliance with the regulations of the Financial Superintendence of Colombia (Superintendencia Financiera de Colombia or "SFC"). The SFC is the supervisor of the national banking, insurance, pension funds, and securities markets under Colombian laws, with the purpose of assuring their stability, efficiency and transparency, as well as maintaining and fostering a sound and balanced development of the financial system as a whole, while protecting the interests of the public in Colombia. The SFC is responsible for inspecting, supervising and controlling Scotiabank Colpatria S.A. Additionally, the SFC promotes, organizes and develops regulations in order to ensure the protection of investors, depositors, shareholders and stakeholders. The SFC is also responsible for financial customer protection.

United Kingdom

In respect of its London Branch, the Bank is authorized in the United Kingdom by the Prudential Regulation Authority ("PRA") and subject to regulation by the Financial Conduct Authority ("FCA") and limited regulation by the PRA. Scotiabank Europe plc, a wholly owned subsidiary of the Bank in the United Kingdom, is authorized by the PRA and regulated by the FCA and the PRA. Scotiabank Europe plc's prudential supervisor is the PRA and its conduct supervisor is the FCA.

Other Jurisdictions

Outside of the U.S., Mexico, Peru, Chile, Colombia and the United Kingdom, each of the Bank's branches, agencies and subsidiaries, many of which are banks in their own right, is also subject to the regulatory requirements of the jurisdiction in which it conducts its business.

On March 11, 2020, the World Health Organization declared the COVID-19 outbreak a global pandemic. In the early days of the pandemic and absent any medical approaches to slow the spread of the virus, governments around the world implemented a number of measures to curtail the outbreak and slow its progression. Information on the impact of COVID-19 on the Bank is described on pages 28-29 inclusive of the MD&A and those pages are incorporated here by reference. Certain other regulatory developments facing the Bank are described on pages 122 to 124 inclusive of the MD&A and those pages are incorporated herein by reference

Environmental, Social and Governance Strategies

Each year the Bank publishes its Environment, Social and Governance (ESG) Report, which provides details of the Bank's priorities and performance related to environmental, social and governance policies and strategies. This document and additional information can be found in the Responsibility and Impact section of the Bank's website at https://www.scotiabank.com/ca/en/about/responsibility-impact.html.

Risk Factors

The risks faced by the Bank are described on pages 79 to 117 inclusive of the MD&A and those pages are incorporated herein by reference.

DIVIDENDS

Restrictions on payment of dividends and retirement of shares

Under the Bank Act, the Bank is prohibited from declaring any dividends on its common or preferred shares or redeeming, purchasing or otherwise retiring such shares when the Bank is, or would be placed by such a declaration or retirement, in contravention of the capital adequacy, liquidity or any other regulatory directives issued under the Bank Act.

In the event that applicable cash distributions on any of the Scotiabank Trust Securities are not paid on a regular distribution date, the Bank has undertaken not to declare dividends of any kind on its preferred or common shares until such distributions are made in full or the twelfth month following the non-payment of such distributions. Similarly, should the Bank fail to declare regular dividends on any of its directly issued and outstanding preferred or common shares, cash distributions will also not be made on any of the Scotiabank Trust Securities.

In the event that distributions are not paid in full on the Bank's Subordinated Additional Tier 1 Capital Notes (NVCC), including those issued as recourse assets in respect of LRCNs to Scotiabank LRCN Trust where the trustee has not waived such distributions or no longer holds the respective LRCN AT1 Capital Notes (defined below), the Bank has undertaken not to declare dividends on its common or preferred shares or redeem, purchase or otherwise retire such shares until the month commencing after such distributions have been made in full.

In the event that dividends to which preferred shareholders are then entitled have not been paid or sufficient funds have not been set aside to do so, the Bank has undertaken not to declare dividends on its common shares or redeem, purchase or otherwise retire its common shares.

On March 13, 2020, OSFI advised federally regulated deposit taking institutions to suspend buybacks and increases to dividends in respect of its common shares as part of COVID-19 measures. On November 4, 2021, OSFI removed these COVID-19 related restrictions and advised that such institutions may increase regular dividends and, subject to approval, repurchase common shares.

Currently, the above limitations do not restrict the payment of dividends on or retirement of preferred or common shares.

Dividend Payments

In fiscal 2021, the Bank's actual common share dividend payout ratio was 46.5%, compared to 66.3% in 2020. The Bank has declared and paid the following dividends on its common shares and preferred shares over the past three completed financial years:

	2021	2020	2019
Common Shares	$3.600000	$3.600000	$3.490000
Series 22[1]			$0.239375
Series 23[1]			$0.215885
Series 30[2]		$0.227500	$0.455000
Series 31[2]		$0.331828	$0.657072
Series 32[3]	$0.138829	$0.515752	$0.515752
Series 33[3]	$0.100614	$0.579323	$0.742073
Series 34[4]	$0.687500	$1.375000	$1.375000
Series 36[5]	$1.031250	$1.375000	$1.375000
Series 38	$1.212500	$1.212500	$1.212500
Series 40	$1.212500	$1.212500	$1.271475

(1) On January 28, 2019, the Bank redeemed all of its issued and outstanding Preferred Shares, Series 22 and Series 23.
(2) On April 26, 2020, the Bank redeemed all of its issued and outstanding Preferred Shares, Series 30 and 31
(3) On February 2, 2021, the Bank redeemed all of its issued and outstanding Preferred Shares, Series 32 and series 33
(4) On April 26, 2021, the Bank redeemed all of its issued and outstanding Preferred Shares, Series 34
(5) On July 26, 2021, the Bank redeemed all of its issued and outstanding Preferred Shares, Series 36

DESCRIPTION OF THE BANK'S CAPITAL STRUCTURE

The following summary of the Bank's share capital is qualified in its entirety by the Bank's by-laws and the actual terms and conditions of such securities. For more details on the Bank's capital structure, see pages 61 to 68 of the MD&A and notes 21 and 24 of the consolidated financial statements for the year ended October 31, 2021. The Bank incorporates those pages and notes by reference.

Common Shares

The authorized common share capital of the Bank consists of an unlimited number of common shares, without nominal or par value, of which 1,215,337,523 common shares were issued and outstanding as at October 31, 2021.

Holders of the Bank's common shares are entitled to vote at all meetings of the shareholders of the Bank except meetings at which only the holders of preferred shares of the Bank are entitled to vote. Common shareholders are entitled to receive dividends, as and when declared on the common shares.

After the payment to the holders of the preferred shares of the amount or amounts to which they may be entitled, the holders of the Bank's common shares shall be entitled to receive the remaining property of the Bank upon liquidation, dissolution or winding-up thereof.

For information on the Bank's normal course issuer bid, see note 24 to the Bank's consolidated financial statements for the year ended October 31, 2021, which is incorporated herein by reference.

Preferred Shares – General

The authorized preferred share capital of the Bank consists of an unlimited number of preferred shares without nominal or par value issuable in series. The term "Preferred Shares" shall refer to all authorized preferred shares of the Bank.

As at October 31, 2021, Non-cumulative Preferred Shares, Series 38 and 40 were outstanding. In addition, Non-cumulative Preferred Shares, Series 39 and 41 were authorized but are not currently outstanding.

The Preferred Shares are entitled to preference over the common shares and over any other shares of the Bank ranking junior to the Preferred Shares with respect to the payment of dividends and upon any distribution of assets in the event of liquidation, dissolution or winding-up of the Bank.

The Bank may not create, without the approval of the holders of Preferred Shares, any other class of shares ranking prior to or on a parity with the Preferred Shares, increase the authorized number of Preferred Shares or amend the provisions attaching to the Preferred Shares.

Any approval to be given by the holders of the Preferred Shares may be given by a resolution carried by the affirmative vote of not less than 66 2/3% of the votes cast at a meeting of holders of Preferred Shares at which a majority of the outstanding Preferred Shares is represented or, if no quorum is present at such meeting, at any adjourned meeting at which no quorum requirements would apply.

Effective January 1, 2013, in accordance with capital adequacy requirements adopted by OSFI, non-common capital instruments issued after January 1, 2013, including Preferred Shares, must include terms providing for the full and permanent conversion of such securities into common shares upon the occurrence of certain trigger events relating to financial viability (the Non-Viability Contingent Capital or "NVCC requirements") in order to qualify as regulatory capital. Preferred Shares, Series 38, 39, 40 and 41 satisfy the NVCC requirements and were all issued or authorized after January 1, 2013.

Certain Provisions of the Preferred Shares

Dividends

The holders of the Preferred Shares will be entitled to receive either a fixed or floating rate quarterly non-cumulative preferential cash dividend, as and when declared by the Board of Directors of the Bank, subject to the provisions of the Bank Act, on the third last business day of each of January, April, July and October in each year at the rate specified in the terms of each series. If the Board of Directors of the Bank does not declare the dividends, or any part thereof, on a series of Preferred Shares on or before the dividend payment date for a particular quarter, then the entitlement of the holders of such series of Preferred Shares to receive such dividends, or to any part thereof, for such quarter shall be forever extinguished.

The holders of the Preferred Shares, Series 38 and 40 are entitled to receive fixed quarterly, non-cumulative cash dividends, as and when declared by the Board of Directors of the Bank, for the specified initial period as set out in the terms of each series, and thereafter the dividend rate for each series will reset every five years at the rate specified in the terms for such series.

The holders of the Preferred Shares, Series 39 and 41 are entitled to receive floating rate quarterly, non-cumulative cash dividends, as and when declared by the Board of Directors of the Bank. No Preferred Shares, Series 39 or 41 are currently outstanding.

Redemption

The Preferred Shares currently outstanding will not be redeemable prior to the date specified in the terms for each series. On and after such dates for the Preferred Shares specified in the foregoing sentence and for all other series of Preferred

Shares issued and outstanding as at October 31, 2021, subject to the provisions of the Bank Act and to the prior consent of the Superintendent and to certain conditions being met, the Bank may redeem at the time specified in the terms of each series all or any part of an outstanding series of Preferred Shares at the Bank's option without the consent of the holder, by the payment of an amount in cash for each such share so redeemed as specified in the terms of each series.

Notice of any redemption of any series of Preferred Shares will be given by the Bank at least 30 days and not more than 60 days prior to the date fixed for redemption. If less than all the outstanding Preferred Shares in any series are at any time to be redeemed, the shares to be redeemed will be redeemed *pro rata*, disregarding fractions.

Rights Upon Dissolution or Winding-Up

In the event of the liquidation, dissolution or winding-up of the Bank, the holders of each series of the Preferred Shares shall be entitled to receive $25.00 per Preferred Share, together with all dividends declared and unpaid to the date of payment before any amount shall be paid or any assets of the Bank distributed to the holders of any shares ranking junior to the Preferred Shares. The holders of each series of the Preferred Shares shall not be entitled to share in any further distribution of the assets of the Bank.

Restrictions on Dividends and Retirement of Shares

So long as any shares of a series of Preferred Shares are outstanding, the Bank will not, without the approval of the holders of the relevant series of Preferred Shares:

(a) declare, pay or set apart for payment any dividends on the common shares of the Bank or any other shares ranking junior to the series of Preferred Shares (other than stock dividends payable in shares ranking junior to the series of Preferred Shares);

(b) redeem, purchase or otherwise retire any common shares or any other shares ranking junior to the series of Preferred Shares (except out of the net cash proceeds of a substantially concurrent issue of shares ranking junior to the series of Preferred Shares);

(c) redeem, purchase or otherwise retire less than all of the series of Preferred Shares; or

(d) except pursuant to any purchase obligation, sinking fund, retraction privilege or mandatory redemption provisions attaching to any series of Preferred Shares of the Bank, redeem, purchase or otherwise retire any other shares ranking on a parity with the series of Preferred Shares;

unless, in each case, all dividends up to and including those payable on the dividend payment date for the last completed period for which dividends shall be payable shall have been declared and paid or set apart for payment in respect of each series of cumulative preferred shares of the Bank then issued and outstanding and on all other cumulative shares ranking on a parity with the preferred shares of the Bank and there shall have been paid or set apart for payment all declared dividends in respect of each series of non-cumulative preferred shares of the Bank (including the series of Preferred Shares) then issued and outstanding and on all other non-cumulative shares ranking on a parity with the Preferred Shares of the Bank.

Purchase for Cancellation

Subject to the provisions of the Bank Act, the prior consent of the Superintendent and certain conditions being met, the Bank may at any time purchase for cancellation any series of Preferred Shares outstanding, in the open market at the lowest price or prices at which in the opinion of the Board of Directors of the Bank such shares are obtainable.

Issuance of Other Series of Preferred Shares

The Bank may issue other series of preferred shares ranking on parity with the Preferred Shares without the authorization of the holders of the Preferred Shares.

Voting Rights

Subject to the provisions of the Bank Act, the holders of a series of Preferred Shares as such will not be entitled to receive notice of, attend, or vote at, any meeting of the shareholders of the Bank unless and until the first time at which the Board of Directors of the Bank has not declared the whole dividend on such series of Preferred Shares in respect of any quarter. In that event, the holders of such Preferred Shares will be entitled to receive notice of, and to attend, meetings of shareholders at which directors of the Bank are to be elected and will be entitled to one vote for each Preferred Share held. The voting rights of the holders of such series of Preferred Shares shall forthwith cease upon payment by the Bank of the first dividend on the series of Preferred Shares to which the holders are entitled subsequent to the time such voting rights first arose until such time as the Bank may again fail to declare the whole dividend on such series of Preferred Shares in any quarter, in which event such voting rights shall become effective again and so on from time to time.

Other Equity Instruments – Subordinated Capital Notes – General

The Bank currently has outstanding (a) US$1.25 billion 4.650% Fixed to Floating Rate Non-Cumulative Subordinated AT1 Capital Notes (NVCC) ("4.650% AT1 Capital Notes"), (b) US$1.25 billion 4.900% Fixed Rate Resetting Perpetual Subordinated AT1 Capital Notes (NVCC) ("4.900% AT1 Capital Notes"), (c) $1.25 billion 3.70% Fixed Rate Resetting Limited Recourse Capital Notes, Series 1 (NVCC) ("3.70% LRCNs"), (d) $1.25 billion 3.70% Fixed Rate Resetting Perpetual Subordinated AT1 Capital Notes (NVCC) ("3.70% AT1 Capital Notes"), (e) US$600 million 3.625% Fixed Rate Resetting Limited Recourse Capital Notes, Series 2 (NVCC) ("3.625% LRCNs"), and (f) US$600 million 3.625% Fixed Rate Resetting Perpetual Subordinated AT1 Capital Notes (NVCC) ("3.625% AT1 Capital Notes" and together with the 4.650% AT1 Capital Notes, the 4.900% AT1 Capital Notes, the 3.70% LRCNs, the 3.70% AT1 Capital Notes and the 3.625% LRCNs, the "Subordinated Capital Notes"). The Subordinated Capital Notes have been determined to be compound instruments that have both equity and liability features. For more details, see note 24 of the consolidated financial statements for the year ended October 31, 2021.

The Subordinated Capital Notes are direct unsecured obligations of the Bank and rank pari passu with each other and subordinate to all of the Bank's indebtedness and in right of payment equally with and not prior to indebtedness that ranks equally in right of payment with, or is subordinated to, the Subordinated Capital Notes (other than indebtedness which by its terms ranks subordinate to the Subordinated Capital Notes). The Subordinated Capital Notes constitute subordinated indebtedness for the purposes of the Bank Act. In the event of the Bank's insolvency or winding-up (i) a Recourse Event (as defined below) will have occurred and pursuant to the limited recourse feature described below, an investment in the 3.70% LRCNs and the 3.625% LRCNs (collectively, the "LRCNs"), will become an investment in the corresponding 3.70% AT1 Capital Notes or 3.625% AT1 Capital Notes, respectively and will be subject to the subordination provisions of such notes, and (ii) the 4.650% AT1 Capital Notes, the 4.900% AT1 Capital Notes, the 3.70% AT1 Capital Notes and the 3.625% AT1 Capital Notes (collectively, the "AT1 Capital Notes") will rank ahead of the Bank's common shares and Preferred Shares.

The AT1 Capital Notes, include terms providing for the full and permanent conversion of such securities into common shares of the Bank upon the occurrence of certain trigger events relating to NVCC requirements in order to qualify as regulatory capital.

Certain Provisions of the Subordinated Capital Notes

Distributions and Restrictions on Dividend and Retirement of Shares

Interest on the 4.650% AT1 Capital Notes is payable semi-annually in arrears for the initial five years. Thereafter, the interest will reset quarterly and accrue at a floating rate. Interest on each of the 4.900% AT1 Capital Notes, the 3.70% LRCNs, the 3.70% AT1 Capital Notes, the 3.625% LRCNs and the 3.625% AT1 Capital Notes is payable quarterly in arrears at a fixed rate for the initial five years and thereafter, interest will reset at each fifth anniversary date and accrue at a fixed rate. While interest on the AT1 Capital Notes is payable on a quarterly or semi-annual basis for the initial five year period, and quarterly thereafter, the Bank may, at its discretion, with prior notice, cancel the interest payments on the AT1 Capital Notes. If the Bank does not pay the interest in full to the note holders, the Bank will not declare dividends on its common shares or Preferred Shares or redeem or otherwise retire such shares until the month commencing after the Bank resumes full interest payments on the AT1 Capital Notes, unless such interest has been waived by the note holders.

Interest will be due and payable on the AT1 Capital Notes on an interest payment date only if it is not cancelled by the Bank. Any cancelled interest payments will not be cumulative. The Bank has the sole and absolute discretion (i) at any time in respect of the 4.65% AT1 Capital Notes and 4.900% AT1 Capital Notes, and (ii) at any time while the 3.700% AT1 Capital Notes and the 3.625% AT1 Capital Notes are no longer held by the LRT Trustee (defined below), and for any reason to cancel (in whole or in part), with notice to the holders of the AT1 Capital Notes, any interest payment that would otherwise be payable on any interest payment date. As a result, the holder of AT1 Capital Notes may not receive any interest on any interest payment date or at any other times, and the holder will have no claims whatsoever in respect of that cancelled interest.

Interest payments on each of the 3.70% LRCNs and 3.625% LRCNs are non-deferrable, however, non-payment in cash of interest that is not cured within 5 business days results in a Recourse Event. Upon a Recourse Event, the holders of such limited recourse capital notes will receive the 3.70% AT1 Capital Notes or 3.625% AT1 Capital Notes, respectively.

Maturity and Redemption

The LRCNs have a stated maturity. The AT1 Capital Notes have no scheduled maturity or redemption date. Accordingly, the Bank is not required to make any repayment of the principal amount of the AT1 Capital Notes except in the event of bankruptcy or insolvency and provided that the NVCC requirements have not been triggered. The Subordinated Capital Notes are redeemable at the sole discretion of the Bank five years after their issuance and every quarter or five years, as applicable, thereafter. The Subordinated Capital Notes are also redeemable following certain regulatory or tax events, in accordance with their terms. All redemptions are subject to regulatory consent. For more details, see note 24 of the consolidated financial statements for the year ended October 31, 2021.

Limited Recourse

The 3.70% AT1 Capital Notes and the 3.625% AT1 Capital Notes (collectively, the “LRCN AT1 Capital Notes”) were issued by the Bank in connection with the Bank’s concurrent issuance of the 3.70% LRCNs and the 3.625% LRCNs, respectively. The LRCN AT1 Capital Notes are held by Computershare Trust Company of Canada as trustee (the “LRT Trustee”) for Scotiabank LRCN Trust (the “Limited Recourse Trust”) for the benefit of the holders of corresponding LRCNs.

In the event of the occurrence of certain recourse events (each, a “Recourse Event”), which include (a) the non-payment in cash by the Bank of the principal amount of the LRCNs, together with any accrued and unpaid interest, on the maturity date, (b) the non-payment in cash by the Bank of the redemption price for the LRCNs when due, (c) the non-payment in cash of interest for the LRCNs when due which is not cured within 5 business days (d) an event of default (i.e. bankruptcy, insolvency, or liquidation of the Bank), or (e) a non-viability contingent capital trigger event, the trustee of the Limited Recourse Trust will deliver to holders of LRCNs their proportionate share of the assets then held by the Limited Recourse Trust, which will, except in limited circumstances, consist of the LRCN AT1 Capital Notes (other than in the case of a non-viability contingent capital trigger event, in which case such assets will be the common shares issued upon conversion of the related LRCN AT1 Capital Notes), in each case in full satisfaction of the Bank’s obligations under the LRCNs.

Purchase for Cancellation

Subject to regulatory consent, the Bank may at any time and from time to time, repurchase for cancellation any Subordinated Capital Notes in the open market, by tender or by private agreement, in any manner and at any price or at differing prices.

If at any time the Bank repurchases for cancellation the LRCNs, then the Bank shall, subject to regulatory consent, redeem such aggregate principal amount of the related LRCN AT1 Capital Notes that is equal to the aggregate principal amount of LRCNs purchased for cancellation by the Bank.

Events of Default

An event of default in respect of the Subordinated Capital Notes will occur only if the Bank becomes bankrupt or insolvent or becomes subject to the provisions of the *Winding-up and Restructuring Act* (Canada), consents to the institution of bankruptcy or insolvency proceedings against it, resolves to wind-up, liquidate or dissolve, is ordered wound-up or otherwise acknowledges its insolvency. None of a default in the performance of any covenant contained in a trust indenture relating to the Subordinated Capital Notes, a failure to make a payment on the Subordinated Capital Notes when due (including any interest payment, whether as a result of cancellation or otherwise) or an NVCC automatic conversion upon the occurrence of a trigger event will constitute an event of default (although the non-payment by the Bank of the principal amount, together with any accrued and unpaid interest, on their maturity date, the non-payment in cash by the Bank of the redemption price when due, and a non-viability contingent capital trigger event will constitute a recourse event for the Limited Recourse Capital Notes).

Issuance of other Senior or *Pari Passu* Securities

The terms governing the Subordinated Capital Notes do not limit the Bank's ability to incur additional indebtedness or issue or repurchase securities, other than the restriction on retirement of shares noted above. The Bank may incur additional indebtedness without the authorization of the holders of the Subordinated Capital Notes.

Voting Rights

Holders of Subordinated Capital Notes are not entitled to any rights of holders of common shares, including any rights of shareholders to receive notice, to attend or to vote at any meeting of the shareholders of the Bank. If the Subordinated Capital Notes are converted into common shares of the Bank under NVCC requirements, holders of the Subordinated Capital Notes will become holders of the Bank's common shares and will only have rights as holders of common shares.

Constraints on Ownership of the Bank's Shares

The Bank Act contains restrictions on the issue, transfer, acquisition, beneficial ownership and voting of all shares of a chartered bank. Please refer to the section above entitled "Description of the Bank's Business – General Summary – Supervision and Regulation in Canada" for a summary of these restrictions.

Credit Ratings of Securities and Liquidity

Credit ratings affect the Bank's access to capital markets and borrowing costs, as well as the terms on which the Bank can conduct derivative and hedging transactions. The credit ratings and outlook that the rating agencies assign to the Bank are based on their own views and methodologies. The following ratings have been assigned to the Bank's securities by the rating agencies noted below, which are independent third parties. Credit ratings, including stability or provisional ratings, are not recommendations to purchase, sell or hold a security as they do not comment on market price or suitability for a particular investor. Ratings may not reflect the potential impact of all risks on the value of securities. In addition, real or anticipated changes in the rating assigned to a security will generally affect the market value of that security. Ratings are subject to revision or withdrawal at any time by the rating agency. Each rating listed in the chart below should be evaluated independently of any other rating applicable to the Bank's debt, Subordinated Capital Notes and Preferred Shares.

	Moody's Investor Service (Moody's)		Standard & Poor's Ratings Services (S&P)		Fitch Ratings (Fitch)		DBRS Limited (DBRS)	
	Rating	Rank(1)	Rating	Rank(1)	Rating	Rank(1)	Rating	Rank(1)
Legacy Senior Debt (2)	Aa2	2 of 9	A+	3 of 10	AA	2 of 10	AA	2 of 10
Senior Debt (3)	A2	3 of 9	A-	3 of 10	AA-	2 of 10	AA (low)	2 of 10
Short-term deposits/commercial paper	P-1	1 of 4	A-1	1 of 6	F1+	1 of 6	R-1(high)	1 of 10
Subordinated debt	Baa1	4 of 9	A-	3 of 10	A	3 of 10	A (high)	3 of 10
Subordinated debt (NVCC) (4)	Baa1 (hyb)	4 of 9	BBB+	4 of 10	N/A	N/A	A (low)	3 of 10
Subordinated additional tier 1 capital notes (NVCC) (4)	Baa3 (hyb)	4 of 9	BBB-	3 of 9	N/A	N/A	BBB (high)	4 of 10
Limited Recourse Capital Notes (NVCC)	Baa3 (hyb)	4 of 9	BBB-	3 of 9	N/A	N/A	BBB (high)	4 of 10
Non-cumulative Preferred Shares (NVCC) (4)	Baa3 (hyb)	4 of 9	BBB-/P-2 (low) (5)	3 of 9 / 2 of 8	N/A	N/A	Pfd-2	2 of 6
Outlook	Stable	N/A	Stable	N/A	Negative	N/A	Stable	N/A

(1) Rank, according to each rating agency's public website, refers to the assigned ratings ranking of all major assignable ratings for each debt of share class, 1 being the highest. Each assignable major rating may be modified further (+/-, high/low, 1/2/3) to show relative standing within the major rating categories.
(2) Includes: (a) Senior debt issued prior to September 23, 2018; and (b) Senior debt issued on or after September 23, 2018 which is excluded from the bank recapitalization "bail-in" regime.
(3) Subject to conversion under the bank recapitalization "bail-in" regime.
(4) Non-Viability Contingent Capital (NVCC)
(5) Canadian Scale

On January 13, 2021, Fitch affirmed the Bank's ratings and maintained the Outlook at Negative.
On April 22, 2021, DBRS affirmed the Bank's ratings and maintained the Outlook at Stable.
On June 16, 2021, Moody's affirmed the Bank's ratings and maintained the Outlook at Stable.
On July 15, 2021, Fitch affirmed the Bank's ratings and maintained the Outlook at Negative.
On August 24, 2021, S&P affirmed the Bank's ratings and maintained the Outlook at Stable.

The Bank makes payments in the ordinary course to the credit rating agencies for the rating services associated with the assignment of the credit ratings noted above. In addition, the Bank made customary payments in respect of certain other services provided to the Bank by the aforementioned credit rating agencies.

A definition of the categories of each rating as at November 30, 2021 has been obtained from the respective rating agency's website and is outlined in Schedule B, and a more detailed explanation may be obtained from the applicable rating agency.

MARKET FOR SECURITIES OF THE BANK

The Bank's common shares are listed under the stock symbol "BNS" on the Toronto Stock Exchange ("TSX") and the New York Stock Exchange ("NYSE"). The Preferred Shares are listed on the TSX under the stock symbols "BNS PR.H" for the Preferred Shares, Series 38, "BNS.PR.I" for the Preferred Shares, Series 40. From time to time, the Bank also has deposit notes and other securities listed on the London Stock Exchange, Singapore Stock Exchange, Swiss Stock Exchange and Taiwan Exchange.

Trading Price and Volume

The following table sets out the price range and trading volume of the Bank's securities on the TSX (as reported by Bloomberg) for the periods indicated:

		Preferred Shares					
	Common Shares	Series 32[1]	Series 33[1]	Series 34[2]	Series 36[3]	Series 38	Series 40
November 2020							
-High Price ($)	$ 65.35	$25.02	$24.95	$25.49	$25.81	$25.74	$22.06
-Low Price ($)	$ 55.11	$24.89	$24.83	$25.25	$25.40	$25.29	$19.92
-Volume ('000)	142,689	495	118	443	775	725	433
December 2020							
-High Price ($)	$ 69.30	$25.13	$25.05	$25.50	$25.74	$25.98	$22.52
-Low Price ($)	$ 63.93	$24.97	$24.90	$25.17	$25.52	$25.35	$21.49
-Volume ('000)	136,748	588	1,103	455	662	606	414
January 2021							
-High Price ($)	$ 71.17	$25.01	$25.01	$25.49	$25.55	$25.79	$24.01
-Low Price ($)	$ 67.43	$24.95	$24.97	$25.11	$25.33	$25.29	$21.96
-Volume ('000)	128,751	669	164	449	256	598	356
February 2021							
-High Price ($)	$ 76.92	$25.00	$25.00	$25.45	$25.58	$25.88	$24.51
-Low Price ($)	$ 68.28	$24.91	$23.41	$25.18	$25.32	$25.47	$23.20
-Volume ('000)	96,370	25	4	1,794	2,650	784	433
March 2021							
-High Price ($)	$ 80.30			$25.35	$25.67	$25.99	$25.00
-Low Price ($)	$ 74.57			$25.22	$25.42	$25.66	$24.12
-Volume ('000)	157,604			1,666	1,057	1,177	647
April 2021							
-High Price ($)	$ 80.50			$25.33	$25.58	$25.80	$24.99
-Low Price ($)	$ 76.45			$24.97	$25.16	$25.40	$24.30
-Volume ('000)	123,298			663	165	626	350
May 2021							
-High Price ($)	$ 81.65				$25.35	$25.74	$25.44
-Low Price ($)	$ 78.06				$25.24	$25.49	$24.87
-Volume ('000)	92,126				365	1,354	501
June 2021							
-High Price ($)	$ 82.37				$25.49	$25.78	$25.96
-Low Price ($)	$ 79.20				$25.28	$25.56	$25.19
-Volume ('000)	126,233				1,192	523	412
July 2021							
-High Price ($)	$ 81.48				$25.35	$25.75	$25.64
-Low Price ($)	$ 76.53				$24.98	$25.32	$25.05
-Volume ('000)	128,537				800	303	246
August 2021							
-High Price ($)	$ 81.31					$25.65	$25.94
-Low Price ($)	$ 77.46					$25.36	$25.11
-Volume ('000)	86,243					255	319
September 2021							
-High Price ($)	$ 81.95					$25.59	$26.11
-Low Price ($)	$ 75.84					$25.37	$25.70
-Volume ('000)	132,696					192	222
October 2021							
-High Price ($)	$ 83.11					$25.58	$26.04
-Low Price ($)	$ 76.86					$25.19	$25.38
-Volume ('000)	128,027					473	222

(1) Redeemed on February 2, 2021
(2) Redeemed on April 26, 2021
(3) Redeemed on July 26, 2021

Prior Sales

From time to time, the Bank issues principal at risk notes, which are securities issued by the Bank for which the amount payable at maturity is determined by reference to the price, value or level of an underlying interest, including an index,

exchange traded fund or a notional basket of equities or other securities. For information about the Bank's issuance of subordinated indebtedness and other equity instruments since October 31, 2020, see notes 21 and 24 to the Bank's consolidated financial statements for the year ended October 31, 2021, which is incorporated herein by reference.

DIRECTORS AND EXECUTIVE OFFICERS OF THE BANK

Directors and Board Committees of the Bank

The following table sets out the Bank's directors as of November 30, 2021. The term of office of each director expires at the close of the Bank's next annual meeting of shareholders. Information concerning the nominees proposed by management for election as directors at the annual meeting of shareholders will be contained in the Bank's 2022 Management Proxy Circular.

Name and Place of Residence	Board Committee Memberships	Principal Occupation
Nora A. Aufreiter Toronto, Ontario, Canada (Director since August 25, 2014)	CGC – Chair HCOB	Corporate Director and a former senior partner of McKinsey & Company, an international consulting firm
Guillermo E. Babatz Mexico City, Mexico (Director since January 28, 2014)	HCOB RC – Chair	Managing Partner of Atik Capital, S.C., an advisory firm that specializes in structuring financial solutions for its clients
Scott B. Bonham Atherton, California, U.S.A. (Director since January 25, 2016)	ACRC CGC	Corporate Director and co-founder of Intentional Capital, a privately-held real estate asset management company
Daniel (Don) H. Callahan Fairfield, Connecticut, U.S.A. (Director since June 15, 2021)	CGC RC	Executive Chairman of TIME USA LLC, and a Corporate Director
Lynn K. Patterson Toronto, Ontario, Canada (Director since September 1, 2020)	ACRC RC	Corporate Director and served as Deputy Governor of the Bank of Canada from May 2014 until her retirement in July 2019
Michael D. Penner Westmount, Quebec, Canada (Director since June 26, 2017)	ACRC CGC	Corporate Director and Senior Advisor for Partners Group AG, a European based, global leader, in private equity. Through this role with Partners Group AG, Mr. Penner acts as Chairman of several portfolio companies including United States Infrastructure Corporation, Enfragen Renewable Energy, and Careismatic Brands, Inc., a medical apparel company
Brian J. Porter Toronto, Ontario, Canada (Director since April 9, 2013)	None	President and Chief Executive Officer of the Bank
Una M. Power Vancouver, British Columbia, Canada (Director since April 12, 2016)	ACRC – Chair HCOB	Corporate Director and the former Chief Financial Officer of Nexen Energy ULC, a former publicly-traded energy company that is a wholly-owned subsidiary of CNOOC Limited

Name and Place of Residence	Board Committee Memberships	Principal Occupation
Aaron W. Regent Toronto, Ontario, Canada (Director since April 9, 2013)	ACRC CGC HCOB RC	Chairman of the Board of the Bank and Founder, Chairman and Chief Executive Officer of Magris Performance Materials Inc., a leading North American based industrial minerals company
Calin Rovinescu Toronto, Ontario, Canada (Director since November 1, 2020)	ACRC HCOB	Corporate Director. He served as President and Chief Executive Officer of Air Canada from April 2009 until his retirement on February 15, 2021
Susan L. Segal Roxbury, Connecticut, U.S.A. (Director since December 2, 2011)	ACRC RC	President and Chief Executive Officer of the Americas Society, an organization dedicated to education, debate and dialogue in the Americas and Council of the Americas, a business organization whose members share a common interest in the western hemisphere
L. Scott Thomson West Vancouver, British Columbia, Canada (Director since April 12, 2016)	HCOB – Chair RC	President and Chief Executive Officer of Finning International Inc., the world's largest Caterpillar equipment dealer
Benita M. Warmbold Toronto, Ontario, Canada (Director since October 29, 2018)	ACRC CGC	Corporate Director the former Senior Managing Director and Chief Financial Officer of Canada Pension Plan (CPP) Investment Board having retired in July 2017

Notes:
ACRC – Audit and Conduct Review Committee
CGC – Corporate Governance Committee
HCOB – Human Capital and Compensation Committee
RC – Risk Committee

All directors have held the positions, or other executive positions with the same, predecessor or associated firms, set out in this AIF for the past five years with the exception of: Michael D. Penner, who prior to November 2018, was Chairman of the Board of Directors of Hydro-Québec; Lynn K. Patterson, who was Deputy Governor of the Bank of Canada until her retirement in July 2019; Benita M. Warmbold, who prior to July 2017, was Senior Managing Director and Chief Financial Officer of the Canada Pension Plan Investment Board and Daniel (Don) H. Callahan, who prior to December 2018, was Chief Administrative Officer and Global Head of Operations, Technology and Shared Services at Citigroup.

Brian Porter is non-independent, due to his position as President and Chief Executive Officer.

Executive Officers of the Bank

The following are the Bank's executive officers, their titles and places of residence in Canada (except as otherwise noted) as of November 30, 2021:

Name and Principal Occupation	Place of Residence
Brian J. Porter President and Chief Executive Officer	Toronto, Ontario
Rajagopal Viswanathan Group Head and Chief Financial Officer	Oakville, Ontario
Ignacio "Nacho" Deschamps Group Head, International Banking and Digital Transformation	Toronto, Ontario
Nicole Frew Executive Vice President and Chief Compliance Officer	Toronto, Ontario
Glen Gowland Group Head, Global Wealth Management	Toronto, Ontario
Jake Lawrence Chief Executive Officer and Group Head, Global Banking and Markets	Toronto, Ontario
Barbara F. Mason Group Head and Chief Human Resources Officer	Toronto, Ontario
James Neate President and Group Head, Corporate and Investment Banking	Mississauga, Ontario
Dan Rees Group Head, Canadian Banking	Toronto, Ontario
Philip Thomas Chief Risk Officer	Cobourg, Ontario
Michael Zerbs Group Head, Technology & Operations	Markham, Ontario
Ian Arellano Executive Vice President and General Counsel	Toronto, Ontario
Anique Asher Executive Vice President, Finance and Strategy	Toronto, Ontario
Stephen Bagnarol Executive Vice President, Canadian Business Banking	Vaughan, Ontario
Paul Baroni Executive Vice President & Chief Auditor	Toronto, Ontario
Alex Besharat Executive Vice President, Canadian Wealth Management	Toronto, Ontario
Tracy Bryan Executive Vice President, Global Operations	Whitby, Ontario
Stuart Davis Executive Vice President, Financial Crimes Risk Management & Group Chief Anti-Money Laundering Officer	Toronto, Ontario
John Doig Executive Vice President, Retail Sales	Toronto, Ontario
Loretta Marcoccia Executive Vice President & Chief Operating Officer, Global Banking and Markets	Toronto, Ontario
Diego Masola Executive Vice President and Country Head, Scotiabank Chile	Santiago, Chile
Tom McGuire Executive Vice President and Group Treasurer	Toronto, Ontario
Gillian Riley Executive Vice President, Tangerine	Toronto, Ontario

Name and Principal Occupation	Place of Residence
Shawn Rose Executive Vice President and Chief Digital Officer	California, U.S.A.
Adrián Otero Rosiles Executive Vice President and Country Head, Mexico	Mexico City, Mexico
Francisco Sardon de Taboada Executive Vice President and Country Head, Peru	Lima, Peru
Anya M. Schnoor Executive Vice President, Caribbean, Central America and Uruguay	Toronto, Ontario
Kevin Teslyk Executive Vice President and Chief Operating Officer, Canadian Banking	Oakville, Ontario
Maria Theofilaktidis Executive Vice-President, Finance	Toronto, Ontario
Ashley Veasey Executive Vice President & Global Chief Information Officer, Business Technology	London, United Kingdom
Terri-Lee Weeks Executive Vice President, Retail Customer	Toronto, Ontario

All of the executive officers of the Bank have been actively engaged for more than five years in the affairs of the Bank in executive or senior management capacities, except: Ian Arellano, who prior to September 2017, was co-head of Torys LLP's International Initiative and a senior partner of Torys LLP law firm; Tom McGuire, who prior to May 2018, was Treasurer of Barclays Americas and Barclays US LLC; Adrián Otero Rosiles, who prior to February 2019, was Head of Wholesale Banking and Head of Investment Banking of BBVA Bancomer, Ashley Veasey, who prior to February 2018, was the Chief Information Officer and Chief Digital Officer for Barclays Bank and Terri-Lee Weeks, who prior to September 2021, was Senior Vice President, Personal Savings & Investments, Royal Bank of Canada.

Cease Trade Orders, Bankruptcies, Penalties or Sanctions

To the best of the Bank's knowledge, the Bank confirms that no director or executive officer of the Bank:

(a) is, as at the date of this AIF or has been within the last 10 years, a director, chief executive officer or chief financial officer of any company that was the subject of a cease trade order or similar order or an order that denied the relevant company access to any exemption under securities legislation, for a period of more than 30 consecutive days that was issued:

  (i) while the director or executive officer was acting in the capacity as director, chief executive officer or chief financial officer; or

  (ii) after the director or executive officer ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer;

(b) is, as at the date of this AIF, or has been within the last 10 years, a director or executive officer of any company that, while that person was acting in that capacity or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets; or

(c) has, or within 10 years before the date of this AIF, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the director or executive officer.

To the best of the Bank's knowledge, none of the directors or executive officers of the Bank have been subject to (a) any penalties or sanctions imposed by a court relating to Canadian securities legislation or by a Canadian securities regulatory authority or have entered into a settlement agreement with a Canadian securities regulatory authority; or (b) any other penalties or sanctions imposed by a court or a regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

Shareholdings of Management

To the knowledge of the Bank, the directors and executive officers of the Bank as a group own, or exercise control or direction over, less than one per cent of the outstanding common shares of the Bank. The Bank's directors or executive officers own, or exercise control or direction over, less than one percent of the outstanding shares of any of the Bank's subsidiaries.

LEGAL PROCEEDINGS AND REGULATORY ACTIONS

In the ordinary course of business, the Bank and its subsidiaries are routinely defendants in, or parties to a number of pending and threatened legal actions and regulatory proceedings, including actions brought on behalf of various classes of claimants. In view of the inherent difficulty of predicting the outcome of such matters, the Bank cannot state what the eventual outcome of such matters will be. However, based on current knowledge, management does not believe that liabilities, if any, arising from pending litigation or regulatory proceedings will have a material adverse effect on the Consolidated Statement of Financial Position or results of operations of the Bank.

Legal provisions are established when it becomes probable that the Bank will incur an expense related to a legal action and the amount can be reliably estimated. Such provisions are recorded at the best estimate of the amount required to settle any obligation related to these legal actions as at the balance sheet date, taking into account the risks and uncertainties surrounding the obligation. Management and internal and external experts are involved in estimating any amounts that may be required. The actual costs of resolving these claims may vary significantly from the amount of the legal provisions. The Bank's estimate involves significant judgement, given the varying stages of the proceedings, the fact that the Bank's liability, if any, has yet to be determined and the fact that the underlying matters will change from time to time. As such, there is a possibility that the ultimate resolution of those legal actions may be material to the Bank's consolidated results of operations for any particular reporting period.

Furthermore, the Bank and its subsidiaries may be subject to penalties or sanctions imposed by regulatory authorities or enter into settlement agreements with regulatory authorities from time to time. As the Bank and its subsidiaries are subject to numerous regulatory authorities around the world, fees, administrative penalties and sanctions may be categorized differently by each regulator. Any such penalties imposed under these categories against the Bank and its subsidiaries, however, are not material, nor would they likely be considered important to a reasonable investor in making an investment decision, and would include penalties such as late filing fees. The Bank and its subsidiaries have not entered into any material settlement agreements with a court relating to securities legislation or with a securities regulatory authority.[2]

On November 5, 2015, the Bank and its New York Agency entered a written agreement (the "Agreement") with the Federal Reserve Bank of New York and the New York State Department of Financial Services relating to the New York Agency's Bank Secrecy Act/Anti-Money Laundering Program. The Bank has committed significant resources to addressing the findings in the Agreement and has made significant enhancements to its BSA/AML and sanctions program.

The Bank recorded settlement and litigation provisions in the amount of $62 million in connection with the Bank's former metals business. These provisions were recorded in the Other operating segment. For more details, see note 23 of the consolidated financial statements for the year ended October 31, 2021.

The Bank, through its Peruvian subsidiary, is engaged in legal actions on certain value-added tax assessed amounts and associated interest totalling $149 million, related to certain client transactions which occurred prior to the Bank's acquisition

[2] National Instrument 14-101 limits the meaning of "securities legislation" to Canadian provincial and territorial legislation and "securities regulatory authority" to Canadian provincial and territorial securities regulatory authorities.

of the subsidiary. In November 2021, the Bank became aware that the Peruvian constitutional court dismissed the matter relating to the interest for procedural reasons. The Bank is analyzing the decision and evaluating its next steps in this matter. Actions related to the original assessed amount continue. Funds were placed on deposit with the Peruvian tax authority by 2014, which stopped the continued accrual of interest. The Bank is confident that it will be successful in these matters and intends to continue to defend its position. Accordingly, no amounts have been accrued in the consolidated financial statements.

In the prior year, the Bank entered into a Deferred Prosecution Agreement ("DPA") with the U.S. Department of Justice (the "DOJ"). Additionally, the Commodity Futures Trading Commission (the "CFTC") issued three separate orders against the Bank (collectively, the "Orders"). The DPA and the Orders (together, the "Resolutions") resolve the DOJ's and CFTC's previously disclosed investigations into the Bank's activities and trading practices in the metals markets and related conduct as well as pre-trade mid-market marks and related swap dealer compliance issues.
Under the terms of the Resolutions, the Bank made aggregate payments to the DOJ and CFTC of approximately $127.5 million (USD) and has agreed to retain an independent compliance monitor, which the Bank engaged on April 1, 2021. Under one of the orders, the CFTC will defer proceedings to suspend or revoke the Bank's provisional registration as a swap dealer subject to the Bank's implementation of a remediation plan, among other conditions, which the Bank is carrying out under the oversight of the independent compliance monitor.

INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

To the best of the Bank's knowledge, the Bank confirms that there are no directors or executive officers or any associate or affiliate of a director or executive officer with a material interest in any transaction within the three most recently completed financial years or during the current financial year that has materially affected or will materially affect the Bank.

TRANSFER AGENT AND REGISTRAR

Computershare Trust Company of Canada is the Bank's transfer agent and registrar at the following addresses: Computershare Trust Company of Canada, 100 University Avenue, 8th Floor, Toronto, Ontario, M5J 2Y1 and Computershare Trust Company N.A., 150 Royall Street, Canton, Massachusetts, 02021, U.S.

CONFLICTS OF INTEREST

To the knowledge of the Bank, no director or executive officer of the Bank has an existing or potential material conflict of interest with the Bank or any of its subsidiaries.

EXPERTS

The Bank's Shareholders' Auditors are KPMG LLP, Bay Adelaide Centre, 333 Bay Street, Suite 4600, Toronto, Ontario, M5H 2S5. KPMG LLP is independent of the Bank within the meaning of the Rules of Professional Conduct / Code of Ethics of various Canadian provincial institutes/ordre and within the meaning of the relevant rules and related interpretations prescribed by the relevant professional bodies and any applicable legislation or regulation.

THE BANK'S AUDIT AND CONDUCT REVIEW COMMITTEE

A copy of the Bank's Audit and Conduct Review Committee charter is attached to this AIF as Schedule C and can also be found on the Bank's website at www.scotiabank.com in the Board of Directors section.

The following directors are members of the Audit and Conduct Review Committee as of November 30, 2021: Una M. Power (Chair and financial expert), Scott B. Bonham, Lynn K. Patterson, Michael D. Penner, Aaron W. Regent (financial expert), Calin Rovinescu, Susan Segal and Benita Warmbold (financial expert). All of the members of the Committee are financially literate and independent as defined by Canadian and United States securities law. The Bank's Board of Directors has designated each of Una M. Power, Aaron W. Regent and Benita M. Warmbold as an 'audit committee financial expert', as that term is defined by United States securities laws.

The education and related experience (as applicable) of each Audit and Conduct Review Committee member is described below.

Una M. Power (Chair) **–** Ms. Power is a corporate director and the former Chief Financial Officer of Nexen Energy ULC, a former publicly-traded energy company that is a wholly-owned subsidiary of CNOOC Limited. During her 24 year career with Nexen, Ms. Power held various executive positions with responsibility for financial and risk management, strategic planning and budgeting, business development, energy marketing and trading, information technology and capital investment. Ms. Power holds a B.Comm. (Honours) from Memorial University and CPA, CA and CFA designations. She has completed executive development programs at Wharton Business School and INSEAD.

Scott B. Bonham – Mr. Bonham is a corporate director and the co-founder of Intentional Capital, a privately-held real estate asset management company. From 2000 to 2015, he was co-founder of GGV Capital, an expansion stage venture capital firm with investments in the U.S. and China. Prior to GGV Capital, he served as Vice President of the Capital Group Companies, where he managed technology investments across several mutual funds from 1996 to 2000. Mr. Bonham has a B.Sc. (in electrical engineering) from Queen's University and an M.B.A. from Harvard Business School.

Lynn K. Patterson – Ms. Patterson is a corporate director and served as Deputy Governor of the Bank of Canada ("BoC") from May 2014 until her retirement from the BoC in July 2019. In this capacity, she was one of two deputy governors responsible for overseeing the BoC's analysis and activities promoting a stable and efficient financial system. Prior to this, Ms. Patterson served as Special Adviser to the Governor and Senior Representative (Financial Markets) at the BoC's Toronto Regional Office. Previous to her time at the BoC, Ms. Patterson was President and Country Head for Bank of America Merrill Lynch Canada. She is a recipient of the Diamond Jubilee Medal as a builder and innovator in Canada's investment industry. Ms. Patterson received an honours degree in Business Administration from the University of Western Ontario and is a Chartered Financial Analyst.

Michael D. Penner – Mr. Penner is a corporate director and Senior Advisor for Partners Group AG, a European based, global leader, in private equity. Through his role with Partners Group AG, Mr. Penner acts as Chairman of several portfolio companies including United States Infrastructure Corporation, Enfragen Renewable Energy, and Careismatic Brands, Inc., a medical apparel company. Mr. Penner was Chairman of the Board of Directors of Hydro-Quebec from 2014 to 2018. He was the President and Chief Executive Officer of Peds Legwear prior to selling his company to Gildan Activewear Inc. in August 2016. Mr. Penner has been active in the community, on the Board of ICD Quebec and has served as a member of the Board of Directors of Les Grands Ballets Canadiens de Montreal and Selwyn House School. Mr. Penner holds a Bachelor of Arts degree from McGill University and a Juris Doctor from Hofstra University in New York.

Aaron W. Regent – Aaron Regent is Chairman of the Board of Scotiabank. He is the Founder, Chairman and Chief Executive Officer of Magris Performance Materials Inc., a leading North American based industrial minerals company. He was President and Chief Executive Officer of Barrick Gold Corporation from January 2009 to June 2012. Previously, Mr. Regent was Senior Managing Partner of Brookfield Asset Management and Co-Chief Executive Officer of the Brookfield Infrastructure Group, an asset management company, and President and Chief Executive Officer of Falconbridge Limited. Mr. Regent holds a B.A. from the University of Western Ontario and is a chartered accountant and a Fellow of CPA Ontario.

Calin Rovinescu – Calin Rovinescu is a corporate director. He served as President and Chief Executive Officer of Air Canada from April 2009 until his retirement on February 15, 2021. Mr. Rovinescu was the Executive Vice President, Corporate Development & Strategy of Air Canada from 2000 to 2004, and also held the position of Chief Restructuring Officer during the airline's 2003-2004 restructuring. From 2004 to 2009, Mr. Rovinescu was a Co-founder and Principal of Genuity Capital Markets, an independent investment bank. Prior to 2000, he was the Managing Partner of the law firm Stikeman Elliott in Montreal. Mr. Rovinescu was Chair of the Star Alliance Chief Executive Board from 2012 to 2016 and Chair of the International Air Transport Association in 2014-2015. He is also a member of the Board of Directors of BCE Inc. and a Senior Advisor to Brookfield Asset Management Inc. and Teneo. Mr. Rovinescu holds Bachelor of law degrees from the Université de Montréal and the University of Ottawa, and has been awarded six Honorary Doctorates from universities in Canada, Europe and the United States. Mr. Rovinescu was named the 14th Chancellor of the University of Ottawa in November 2015. In 2016, Mr. Rovinescu was recognized as Canada's Outstanding CEO of the Year by the Financial Post Magazine. In 2019, Mr. Rovinescu was recognized as Strategist of the Year and as Canada's Outstanding CEO of the Year for the second time by the Globe and Mail's Report on Business magazine. Mr. Rovinescu is a member of the Order of Canada and is being inducted into the Canadian Business Hall of Fame in 2021.

Susan L. Segal – Susan Segal was elected President and Chief Executive Officer of the Americas Society, an organization dedicated to education, debate and dialogue in the Americas, and Council of the Americas, a business organization whose members share a common interest in the western hemisphere, in August 2003. Previously, she was a banker for over 25 years with JPM Chase and its predecessor banks. Ms. Segal received a B.A. from Sarah Lawrence College and a M.B.A. from Columbia University. In 1999, she was awarded the Order of Bernardo O'Higgins, Grado de Gran Oficial in Chile. In 2009, President Alvaro Uribe of Colombia honored her with the Cruz de San Carlos award and in September 2012, Mexican President Calderón awarded her with the Aguila Azteca, the highest award given to a foreigner. In 2013, the North American-Chilean Chamber of Commerce recognized her as the Honorary Chilean of the Year. In 2018, Ms. Segal was awarded Peru's Order of "Merit for Distinguished Services" in the rank of Grand Official on behalf of President Martín Vizcarra.

Benita M. Warmbold – Ms. Warmbold is a corporate director, and the former Senior Managing Director and Chief Financial Officer of Canada Pension Plan (CPP) Investment Board having retired in July 2017. Over her nine years at CPP Investment Board, Ms. Warmbold was responsible for finance, risk, performance, tax, internal audit, legal, technology, data and investment operations. Prior to joining CPP Investment Board in 2008, Ms. Warmbold held senior leadership positions with Northwater Capital, Canada Development Investment Corporation and KPMG. She is Chair of the Canadian Public Accountability Board. Ms. Warmbold holds a B. Comm. (Honours) from Queen's University and is a chartered professional accountant and a Fellow of CPA Ontario. Ms. Warmbold has been recognized three times as one of "Canada's Most Powerful Women Top 100," and in 2016 was inducted into the WXN Hall of Fame.

Shareholders' Auditors

Please refer to Table 81 on page 133 of the MD&A, which is incorporated herein by reference, for disclosure relating to the fees paid by the Bank to the Bank's Shareholders' Auditors, KPMG LLP in each of the last three fiscal years. The nature of these services is described below:

- Audit services generally relate to the statutory audits and review of financial statements, regulatory required attestation reports, as well as services associated with registration statements, prospectuses, periodic reports and other documents filed with securities regulatory bodies or other documents issued in connection with securities offerings.
- Audit-related services include special attest services not directly linked to the financial statements, review of controls and procedures related to regulatory reporting, audits of employee benefit plans and consultation and training on accounting and financial reporting.
- Tax services outside of the audit scope relate primarily to specified review procedures required by local tax authorities, attestation on tax returns of certain subsidiaries as required by local tax authorities, and review to determine compliance with an agreement with the tax authorities.
- Other non-audit services are primarily for the review and translation of English language financial statements into other languages and other services.

The Audit and Conduct Review Committee has adopted policies and procedures (the "Policies") for the pre-approval of services performed by the Bank's Shareholders' Auditors. The objective of the Policies is to specify the scope of services permitted to be performed by the Bank's Shareholders' Auditors and to ensure the independence of the Bank's Shareholders' Auditors is not compromised through engaging them for other services. The Policies state that the Audit and Conduct Review Committee shall pre-approve the following: audit services (all such engagements provided by the Bank's Shareholders' Auditors as well as all such engagements provided by any other registered public accounting firm); and other permitted services to be provided by the Bank's Shareholders' Auditors (primarily audit and audit-related services). The Bank's Shareholders' Auditors shall not be engaged in the provision of tax or other non-audit services, without the pre-approval of the Audit and Conduct Review Committee. The Policies also enumerate pre-approved services including specific audit, audit-related and other limited non-audit services that are consistent with the independence requirements of the U.S. Sarbanes-Oxley Act of 2002, Canadian independence standards for auditors and applicable legal requirements. The Policies are applicable to the Bank, its subsidiaries and entities that are required to be consolidated by the Bank. The Audit and Conduct Review Committee shall review and approve the Policies on a regular basis. The Policies do not delegate any of the Audit and Conduct Review Committee's responsibilities to management of the Bank.

ADDITIONAL INFORMATION

Additional information relating to the Bank may be found on the SEDAR website at www.sedar.com and on the SEC's website at www.sec.gov. For a description of Canadian bank resolution powers and the consequent risk factors attaching to certain liabilities of the Bank reference is made to https://www.scotiabank.com/ca/en/about/investors-shareholders/regulatory-disclosures/canadian-bank-resolution-powers-including-bail-in.html. Such information may also be found at www.sedar.com and at www.sec.gov/edgar. Information contained in or otherwise accessible through the websites mentioned in this Annual Information Form does not form a part of this Annual Information Form. All references in this Annual Information Form to websites are inactive textual references and are for your information only. Additional information, including directors' and officers' compensation, indebtedness and options to purchase securities, principal holders of the Bank's securities and interests of insiders in material transactions, where applicable, is contained in the Management Proxy Circular. Additional financial information is provided in the Bank's consolidated financial statements and MD&A for the year ended October 31, 2021. A copy of such documents may be obtained upon request from the Corporate Secretary's Department, at Scotia Plaza, 44 King Street West, Toronto, Ontario, M5H 1H1 Tel: (416) 866-3672. E-mail: corporate.secretary@scotiabank.com.

Schedule A

Principal subsidiaries (1)

The following table presents certain operating subsidiaries the Bank owns, directly or indirectly. All of these subsidiaries are included in the Bank's consolidated financial statements.

As at October 31 ($ millions)	Principal office	Carrying value of shares 2021	2020
Canadian			
1832 Asset Management L.P.	Toronto, Ontario	**$ 2,680**	$ 1,562
BNS Investments Inc	Toronto, Ontario	**15,200**	14,510
Montreal Trust Company of Canada	Montreal, Quebec		
The Bank of Nova Scotia Trust Company	Toronto, Ontario	**185**	155
National Trust Company	Stratford, Ontario	**366**	359
Roynat Inc.	Calgary, Alberta	**518**	409
Scotia Capital Inc.	Toronto, Ontario	**2,818**	2,338
Scotia Dealer Advantage Inc.	Burnaby, British Columbia	**729**	614
Scotia Mortgage Corporation	Toronto, Ontario	**750**	760
Scotia Securities Inc.	Toronto, Ontario	**53**	49
Tangerine Bank	Toronto, Ontario	**3,405**	3,264
Jarislowsky, Fraser Limited	Montreal, Quebec	**1,027**	957
MD Financial Management Inc.	Ottawa, Ontario	**2,761**	2,645
International			
Scotiabank Colpatria S.A. (51%)	Bogota, Colombia	**995**	1,004
BNS International (Bahamas) Limited	Nassau, Bahamas	**17,543**	18,510
BNS Asia Limited	Singapore		
The Bank of Nova Scotia Trust Company (Bahamas) Limited	Nassau, Bahamas		
Grupo BNS de Costa Rica, S.A.	San Jose, Costa Rica		
Scotiabank & Trust (Cayman) Ltd.	Grand Cayman, Cayman Islands		
Scotiabank (Bahamas) Limited	Nassau, Bahamas		
Scotiabank (Ireland) Designated Activity Company	Dublin, Ireland		
Grupo Financiero Scotiabank Inverlat, S.A. de C.V. (97.4%)	Mexico City, Mexico	**4,714**	4,320
Nova Scotia Inversiones Limitada	Santiago, Chile	**5,173**	5,255
Scotiabank Chile S.A. (83.03%)	Santiago, Chile		
Scotia Holdings (US) Inc. (2)	New York, New York		
Scotia Capital (USA) Inc. (2)(3)	New York, New York		
Scotiabank Brasil S.A. Banco Multiplo	Sao Paulo, Brazil	**280**	282
Scotiabank Caribbean Holdings Ltd.	Bridgetown, Barbados	**1,630**	1,842
Scotia Group Jamaica Limited (71.8%)	Kingston, Jamaica		
The Bank of Nova Scotia Jamaica Limited	Kingston, Jamaica		
Scotiabank Trinidad and Tobago Limited (50.9%)	Port of Spain, Trinidad and Tobago		
Scotiabank (Panama) S.A.	Panama City, Panama		
Scotiabank Uruguay S.A.	Montevideo, Uruguay	**440**	472
Scotiabank Europe plc	London, United Kingdom	**2,273**	2,505
Scotia Peru Holdings S.A.	Lima Peru	**4,277**	5,677
Scotiabank Peru S.A.A. (98.05%)	Lima, Peru		
Profuturo AFP S.A.	Lima, Peru		
Scotiabank Republica Dominicana, S.A. – Banco Multiple (99.80%)	Santo Domingo, Dominican Republic	**775**	808
Scotiabank (Barbados) Limited	Bridgetown, Barbados	**235**	219

(1) The Bank (or immediate parent of an entity) owns 100% of the outstanding voting shares of each subsidiary unless otherwise noted.
(2) The carrying value of this subsidiary is included with that of its parent, BNS Investments Inc.
(3) The carrying value of this subsidiary is included with that of its parent, Scotia Holdings (US) Inc.

Subsidiaries may have a different reporting date from that of the Bank of October 31. Dates may differ for a variety of reasons including local reporting requirements or tax laws. In accordance with the Bank's accounting policies, for the purpose of inclusion in the consolidated financial statements of the Bank, adjustments are made where significant for subsidiaries with different reporting dates.

Schedule B

Definition of Credit Ratings

Moody's

Moody's short-term ratings are assigned to obligations with an original maturity of thirteen months or less and reflect both on the likelihood of a default on contractually promised payments and the expected financial loss suffered in the event of default. The "P-1" rating indicates that an issuer has a superior ability to repay short-term debt obligations.

Moody's long-term ratings are assigned to issuers or obligations with an original maturity of eleven months or more and reflect both on the likelihood of a default on contractually promised payments and the expected financial loss suffered in the event of default. Obligations rated "Aa" are judged to be of high quality and are subject to very low credit risk. Obligations rated "A" are judged to be upper-medium grade and are subject to low credit risk. Obligations rated "Baa" are judged to be medium-grade and subject to moderate credit risk and as such may possess certain speculative characteristics. The numerical modifiers 1, 2 and 3 indicate that the obligation ranks in the higher end, mid-range or lower end, respectively, of that generic rating category.

Additionally, a *(hyb)* indicator is appended to all ratings of hybrid securities issued by banks, insurers, finance companies, and securities firms.

The Moody's rating outlook is an opinion regarding the likely rating direction over the medium term. The "Stable" outlook indicates a low likelihood of a rating change over the medium term.

S&P

S&P short-term issue credit ratings are generally assigned to those obligations considered short-term in the relevant market. Short-term ratings are also used to indicate the creditworthiness of an obligor with respect to put features on long-term obligations. A short-term obligation rated "A-1" is rated in the highest category and indicates S&P's view that an obligor's capacity to meet its financial commitments on these obligations is strong.

S&P long-term issue credit ratings are based, in varying degrees, on S&P Global Ratings' analysis of the following considerations: likelihood of payment - capacity and willingness of the obligor to meet its financial commitment on an obligation in accordance with the terms of the obligation; nature of and provisions of the obligation, and the promise they impute; and protection afforded by, and relative position of, the obligation in the event of bankruptcy, reorganization, or other arrangement under the laws of bankruptcy and other laws affecting creditors' rights. A rating in the "A" category means the obligation is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher-rated categories. However, the obligor's capacity to meet its financial commitment on the obligation is still strong. An obligation rated in the "BBB" category indicates that the obligation exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation. Ratings from AA to CCC may be modified by the addition of a plus (+) or minus (–) sign to show relative standing within the major rating categories.

An S&P Global Ratings preferred share rating on the Canadian scale is a forward-looking opinion about the creditworthiness of an obligor with respect to a specific preferred share obligation issued in the Canadian market relative to preferred shares issued by other issuers in the Canadian market. There is a direct correspondence between the specific ratings assigned on the Canadian preferred share scale and the various rating levels on the global debt rating scale of S&P Global Ratings. The Canadian scale rating is fully determined by the applicable global scale rating, and there are no additional analytical criteria associated with the determination of ratings on the Canadian scale. It is the practice of S&P Global Ratings to present an issuer's preferred share ratings on both the global rating scale and on the Canadian national scale when listing the ratings for a particular issuer. A reference to "high" or "low" reflects the relative strength within the rating category, and the absence of either a "high" or "low" designation indicates the rating is in the middle of the category.

An S&P Global Ratings outlook assesses the potential direction of a long-term credit rating over the intermediate term (generally up to two years for investment grade and generally up to one year for speculative grade). In determining a rating outlook, consideration is given to any changes in economic and/or fundamental business conditions. An outlook is not necessarily a precursor of a rating change or future CreditWatch action. The “Stable” rating outlook means that a rating is not likely to change.

Fitch

A short-term issuer or obligation rating is based in all cases on the short-term vulnerability to default of the rated entity and relates to the capacity to meet financial obligations in accordance with the documentation governing the relevant obligation. Short-term deposit ratings may be adjusted for loss severity. Short-Term Ratings are assigned to obligations whose initial maturity is viewed as “short term” based on market convention. A rating of “F1+” denotes the highest short-term credit quality, indicating the strongest intrinsic capacity for the timely payment of financial commitments. The added “+” denotes an exceptionally strong credit feature.

Long-term credit ratings are used as a benchmark measure of probability of default and are formally described as an Issuer Default Rating (“IDR”). IDRs opine on an entity’s relative vulnerability to default (including by way of a distressed debt exchange) on financial obligations. A rating of “AA” denotes expectation of very low default risk and indicates very strong capacity for payment of financial commitments; this capacity is not significantly vulnerable to foreseeable events. A rating of “A” denotes expectations of low default risk and the capacity for payment of financial commitments is considered strong; this capacity may, nevertheless, be more vulnerable to adverse business or economic conditions than is the case for higher ratings. Within some of the rating levels, Fitch further differentiates the rankings by adding the modifiers “+” or “-” to denote relative status within major rating categories.

Rating Outlooks indicate the direction a rating is likely to move over a one-to-two year period. They reflect financial or other trends that have not yet reached or been sustained the level that would cause a rating action, but which may do so if such trends continue. The “Stable” rating outlook means that the rating is not likely to change over a one-to-two year period.

DBRS

The DBRS short-term debt rating scale provides an opinion on the risk that an issuer will not meet its short-term financial obligations in a timely manner. The R-1 and R-2 rating categories are further denoted by the subcategories “high”, “middle” and “low”. An obligation rated R-1(high) is of the highest credit quality and indicates the capacity for the payment of short-term financial obligations as they fall due is exceptionally high; unlikely to be adversely affected by future events.

The DBRS long-term rating scale provides an opinion on the risk of default. That is, the risk that an issuer will fail to satisfy its financial obligations in accordance with the terms under which the obligations have been issued. Ratings are based on quantitative and qualitative considerations relevant to the issuer, and the relative ranking of claims. All rating categories other than AAA and D also contain subcategories “(high)” and “(low)”. The absence of either a “(high)” or “(low)” designation indicates the rating is in the middle of the category. Long-term financial obligations rated “AA” are of superior credit quality and capacity for the payment is considered high; credit quality differs from AAA only to a small degree; unlikely to be significantly vulnerable to future events. Long-term financial obligations rated “A” are of good credit quality and capacity for payment is considered substantial, but of lesser credit quality than AA; and may be vulnerable to future events, but qualifying negative factors are considered manageable.

The DBRS preferred share rating scale is used in the Canadian securities market and is meant to give an indication of the risk that a borrower will not fulfill its full obligations in a timely manner, with respect to both dividend and principal commitments. Every DBRS rating is based on quantitative and qualitative considerations relevant to the borrowing entity. This scale may also apply to certain hybrid securities, in which case references to dividend throughout will reflect interest commitments of the hybrid security. Each rating category is denoted by the subcategories “high” and “low”. The absence of either a “high” or “low” designation indicates the rating is in the middle of the category. The “Pfd-2” rating indicates that the preferred shares are of good credit quality.

Rating trends provide guidance in respect of DBRSs opinion regarding outlook for the rating in question. The “Stable” rating trend represents an indication that there is less likelihood that the rating could change in the future than would be the case if the rating trend was “Negative”.

Schedule C

CHARTER

AUDIT AND CONDUCT REVIEW COMMITTEE OF THE BOARD OF DIRECTORS OF

THE BANK OF NOVA SCOTIA

The Audit and Conduct Review Committee of the Board of Directors (the "Committee") has the responsibilities and duties as outlined below:

AUDIT

A. Mandate

1. To perform such duties as may be required by:

   - the *Bank Act* (the "Bank Act"), the regulations thereunder and guidelines of the Office of the Superintendent of Financial Institutions Canada ("OSFI"); and
   - other applicable legislation and regulations, including those of the Ontario Securities Commission and the Canadian Securities Administrators, the Toronto Stock Exchange, the New York Stock Exchange ("NYSE"), the Securities and Exchange Commission and the *Sarbanes-Oxley Act, 2002*,

   as more fully described under the heading "**Duties**" below.

2. To assist the Board of Directors (the "Board") in fulfilling its oversight responsibilities for:

   - the integrity of the Bank's consolidated financial statements and related quarterly results releases;
   - the system of internal control, including internal control over financial reporting and disclosure controls and procedures ("internal controls");
   - the external auditor's qualifications, independence and performance; and
   - the Bank's finance, compliance and internal audit functions.

3. To perform such other duties as may from time to time be assigned to the Committee by the Board.

4. To act as the audit committee for any federally chartered Canadian financial institution beneficially owned by the Bank as determined by the Board.

B. Authority

The Committee has authority to:

- conduct or authorize investigations into any matters within its scope of responsibility;
- retain, as appropriate and at the Bank's expense, independent counsel, accountants or others to advise the Committee or assist in the conduct of an investigation;
- meet with Bank officers, the external auditor or outside counsel, as necessary;
- determine appropriate funding for independent advisors;
- communicate directly with the internal and external auditors;
- receive all material correspondence between the external auditor and management related to audit and interim review findings; and
- call a meeting of the Board to consider any matter of concern to the Committee.

C. Duties

The Committee shall:

Financial Information

- review the quarterly and annual consolidated financial statements of the Bank prior to approval by the Board and disclosure to the public, and satisfy itself that the financial statements present fairly the financial position, results of operations and cash flows of the Bank;
    - review should include discussion with management and the external auditor of significant issues, including significant accounting policies, regarding the financial results, accounting principles, practices and management estimates and judgments;
- satisfy itself that the Bank's accounting practices are prudent and appropriate;
- review the quarterly and annual Management's Discussion & Analysis of Financial Condition and Results of Operations ("MD&A") prior to review and approval by the Board;
- review any material proposed changes in accounting standards and securities policies or regulation relevant to the Bank's consolidated financial statements and approve any material changes in accounting policies related to the Bank's consolidated financial statements;
- review any tax matters material to the financial statements;
- be satisfied that adequate procedures are in place for the review of the Bank's public disclosure of all consolidated financial statements, related quarterly results press releases and financial information extracted or derived from the Bank's consolidated financial statements and periodically assess the adequacy of these procedures;
- review material financial press releases prior to public disclosure;
- review earnings press releases, as well as financial information and earnings guidance provided to analysts and rating agencies prior to public disclosure;
- review investments and transactions that could adversely affect the well-being of the Bank brought to its attention by the external auditor or by any officer of the Bank;
- discuss significant financial risk exposures and the steps management of the Bank has taken to monitor, control and report such exposures;
- review the Annual Information Form and Form 40-F; and
- review the process relating to and the certifications of the Chief Executive Officer and the Chief Financial Officer on the integrity of the Bank's quarterly and annual consolidated financial statements.

Internal Controls

- require Bank management to implement and maintain appropriate internal control procedures including anti-fraud controls and review, evaluate and approve these procedures, including the Bank's Internal Control Policy, as part of the Bank's overall internal control framework;
- receive and review reports from management and internal audit on the design and operating effectiveness of the internal control framework and any significant control breakdowns, including any reports concerning significant deficiencies and material weaknesses in the design or operation of internal controls which are reasonably likely to adversely affect the Bank's ability to record, process, summarize and report financial information, and any fraud involving management or other employees who have a significant role in the Bank's internal controls;
    - as part of this review, the Committee should discuss with management whether any deficiencies identified may be systemic or pervasive;
- receive and review the external auditor's audit report on the Bank's internal controls over financial reporting as of the Bank's year end; and
- require management to establish procedures and review and approve the procedures established for the receipt, retention, treatment and resolution of complaints received by the Bank regarding accounting, internal accounting controls or auditing matters, including confidential, anonymous submissions from employees, as part of the Bank's Whistleblower Policy and Procedures, and carry out the Committee's responsibilities under the Bank's Whistleblower Policy and Procedures, as required.

Finance

- oversee the Finance Department, having regard to its independence, by:
    - reviewing and approving the appointment and/or removal of the Chief Financial Officer of the Bank;
    - annually reviewing and approving the mandate of the Chief Financial Officer and the charter of the Finance Department;
    - annually reviewing and approving the organizational structure of the Finance Department;
    - annually reviewing and approving the Finance Department's resources and budget;
    - annually assessing the effectiveness of the Chief Financial Officer and the effectiveness of the Finance Department, and annually approving the performance review of the Chief Financial Officer, taking into consideration any regulatory findings with respect to the finance function;
    - conveying its views to the Human Capital and Compensation Committee on the following matters:
        - the assessment of the effectiveness and performance review of the Chief Financial Officer;
        - considerations to be factored into the total compensation to be paid to the Chief Financial Officer; and
        - succession planning for the role of Chief Financial Officer;
    - overseeing that the Finance Department has unfettered access and a functional reporting line to the Committee;
    - periodically requesting independent reviews of the Finance Department, reviewing the results of such reviews and reporting such results to the Board; and
    - overseeing that deficiencies identified related to the Finance Department are remedied within an appropriate time frame and reporting to the Board on the progress of necessary corrective actions.

Compliance

- approve the Compliance Risk Summary Framework;
- receive reports from management on the Bank's compliance with legal and regulatory requirements and the adequacy and effectiveness of the Bank's compliance controls, including:
    - review the annual and other periodic reports of Global Compliance; and
    - follow up with management on plans to remediate any deficiencies identified in reports and on any regulatory recommendations or findings, and discuss if weaknesses may exist elsewhere;
- meet, on its own or with the Board, with representatives of OSFI to discuss OSFI's supervisory results;
- meet with Bank management to review and discuss the Bank's response to OSFI's recommendations and suggestions pursuant to their supervisory activities;
- review any issues raised by Internal Audit that address the appropriateness and effectiveness of the Bank's Compliance Risk Summary Framework and management of significant compliance risks;
- oversee the Global Compliance Department, having regard to its independence, by:
    - reviewing and approving the appointment and/or removal of the Chief Compliance Officer;
    - annually reviewing and approving the mandate for the Chief Compliance Officer and the charter of the Global Compliance Department;
    - annually reviewing and approving the organizational structure of the Global Compliance Department;
    - annually reviewing and approving the Global Compliance Department's resources and budget;
    - annually assessing the effectiveness of the Chief Compliance Officer and the effectiveness of the Global Compliance Department, and annually approving the performance review of the Chief Compliance Officer, taking into consideration any regulatory findings with respect to the Global Compliance Department;
    - conveying its view to the Human Capital and Compensation Committee on the following matters:
        - the assessment of the effectiveness and performance review of the Chief Compliance Officer;
        - considerations to be factored into the total compensation to be paid to the Chief Compliance Officer; and
        - succession planning for the role of Chief Compliance Officer;
    - overseeing that Global Compliance has unfettered access and a functional reporting line to the Committee;

- periodically requesting independent reviews of the Global Compliance Department, reviewing the results of such reviews and reporting such results to the Board; and
- overseeing that deficiencies identified related to Global Compliance are remedied within an appropriate time frame and reporting to the Board on the progress of necessary corrective actions.

Internal Audit

- review the quarterly and other reports of the Chief Auditor;
- review any matters of significance that arose from non-audit engagements performed by the Audit Department;
- regularly meet with the Chief Auditor with and/or without management, to discuss the effectiveness of the Bank's internal control, risk management (including anti-money laundering) and governance processes;
- oversee the Audit Department, having regard to its independence, by:
  - reviewing and approving the appointment and/or removal of the Chief Auditor;
  - annually reviewing and approving the mandate of the Chief Auditor and the charter of the Audit Department;
  - annually reviewing and approving the organizational structure of the Audit Department;
  - annually reviewing and approving the annual audit plan, overall risk assessment methodology, budgets and resources of the Audit Department;
  - annually assessing the effectiveness of the Chief Auditor and the Audit Department, taking into consideration the objectivity and independence of the Bank's internal audit function, and annually approving the performance review of the Chief Auditor, taking into consideration any regulatory findings with respect to the Audit Department;
  - conveying its view to the Human Capital and Compensation Committee on the following matters:
    - the assessment of the effectiveness and performance review of the Chief Auditor;
    - considerations to be factored into the total compensation to be paid to the Chief Auditor; and
    - succession planning for the role of Chief Auditor;
  - periodically reviewing results of the internal Quality Assurance and Improvement Program;
  - periodically requesting independent reviews of the Audit Department, reviewing the results of such reviews and reporting such results to the Board;
  - overseeing that deficiencies identified related to the Audit Department are remedied within an appropriate time frame and reporting to the Board on the progress of necessary corrective actions; and
  - advising the Board of any recommendations for the continuous improvement of the Audit Department;
- ensure the Audit Department has unfettered access and a direct and independent reporting line to the Committee;
- provide for an open avenue of communication between the Audit Department and the Board;
- ensure that the Audit Department's recommendations are adequately considered and acted on, by providing the Audit Department with the authority to follow-up on observations and recommendations; and
- review and approve the Internal Audit Third Party Risk Management Policy.

External Auditor

- have responsibility for the oversight of the external auditor who reports directly to the Committee;
- recommend to the Board the retention or termination of the Bank's external auditor, subject to shareholder ratification;
- review and approve the annual audit plan and letter(s) of engagement, and as part of such review, satisfy itself that the Bank's audit plan is risk based and covers all relevant activities over a measurable cycle;
- annually review the external auditor's opinion on the annual financial statements, including the key audit matters and critical audit matters contained therein;
- review and evaluate the external auditor's qualifications, performance and independence, including a review and evaluation of the lead audit partner, taking into consideration the opinions of management and the Bank's Audit Department in such evaluation and any concerns raised by OSFI or other stakeholders about the external auditor's independence;

- consistent with the Committee's annual assessment and periodic comprehensive review of the external auditors, the Committee shall establish a policy that stipulates the criteria for the Bank tendering the contract for the role of the Bank's external auditor;
- as part of this policy and any review undertaken by the Committee, the Committee should periodically consider whether to put the external auditor contract out for tender, taking into consideration the length of the current external auditor's tenure and the risks that tenure may pose to the external auditor's objectivity and independence;
- receive the CPAB's annual public report, along with any notices required to be communicated by the external auditor to the Committee, including those required by CPAB, OSFI and PCAOB;
- review and recommend to the Board the annual fee for the audit of the Bank's consolidated financial statements;
    - as part of this review, the Committee should satisfy itself that the level of audit fees is commensurate with the scope of work undertaken;
- review and pre-approve in accordance with established pre-approval policy, all services to be provided by the external auditor, including audit and audit related services and permitted tax and non-audit services;
- delegate the authority to pre-approve non-audit services to a member of the Committee;
- review external auditor services pre-approved by the delegate of the Committee;
- review annually the total fees paid to the external auditor by required categories;
- at least annually, obtain and review reporting from the external auditor describing:
- the firm's internal quality-control procedures;
    - any material issues raised by the most recent internal quality-control review, or peer review, of the firm, or by any inquiry or investigation by governmental or professional authorities, within the preceding five years, regarding one or more independent audits carried out by the firm, and any steps taken to deal with any such issues;
    - the skill and resources (amount and type) of the firm; and
    - an assessment of all relationships between the external auditor and the Bank that pertain to independence;
- review the rotation plan for partners on the engagement;
- meet with the external auditor and with management to discuss the quarterly and the annual consolidated financial statements and the Bank's disclosure under any MD&A;
- review with management and the external auditor all matters required to be communicated to the Committee under generally accepted auditing standards;
- review with the external auditor any audit problems or difficulties and management's response;
- discuss with the external auditor the OSFI returns, investments or transactions reviewed by the Committee;
- resolve any disputes between the external auditor and management; and
- review and approve policies for the Bank's employment of current and former employees or partners of the current or former external auditor.

Other Duties

- review the periodic reports on litigation matters;
- review such returns as specified by OSFI;
- review such other periodic disclosure documents as required by regulators or that may be required by law;
- provide for an open avenue of communication between internal audit, the external auditor and the Board;
- annually, review the charter for the Committee and evaluate the Committee's effectiveness in fulfilling its mandate;
- prepare a committee report for inclusion in the Bank's management proxy circular; and
- institute and oversee special investigations as needed.

CONDUCT REVIEW

D. Mandate

1. To perform the duties with respect to the Bank's procedures for ensuring its transactions with its related parties comply with Part XI of the Bank Act and any regulations thereunder as more fully described under the heading "**Duties**" below.

2. In the event a widely held bank holding company or insurance holding company has a significant interest in any class of shares of the Bank:

   - to establish policies for entering into transactions referred to in subsection 495.1(1) of the Bank Act, including transactions with a holding company or any other related party of the Bank that is an entity in which the holding company has a substantial investment; and
   - to review certain of the Bank's transactions that are referred to in subsection 495.3(1) of the Bank Act including any transaction with a widely held insurance or bank holding company or any other related party in which they hold a substantial investment.

3. To perform such duties as are required by the Bank Act to be dealt with by a committee of the Board concerning the monitoring of adherence to procedures for identifying potential conflicts of interest and for resolving such conflicts of interest, for restricting the use of confidential information, for providing disclosure of information to customers and for dealing with customer complaints as required under subsection 455(1) of the Bank Act, and as more fully described under the heading "**Duties**" below.

4. To assist the Board in fulfilling its oversight responsibilities for:

   - setting standards of conduct and ethical behaviour; and
   - the oversight of conduct review, risk culture and conduct risk.

5. To perform such other duties as are required under the Bank Act or by OSFI, or as may from time to time be assigned by the Board.

6. To monitor and fulfill the compliance requirements of the Bank in respect of the Financial Consumer Agency of Canada.

7. To act as the conduct review committee for any federally chartered Canadian financial institution beneficially owned by the Bank as determined by the Board.

E. Duties

1. Establish criteria for determining whether the value of transactions with related parties of the Bank is nominal or immaterial to the Bank;

2. Approve the terms and conditions of:

   - loans, other than margin loans, to senior officers of the Bank on terms and conditions more favourable to the senior officers than those offered to the public; and
   - loans to spouses or common-law partners of senior officers of the Bank on the security of mortgages of the principal residences of such spouses or common-law partners on terms and conditions more favourable than those offered to the public;

3. Approve the practice of the Bank making financial services, other than loans or guarantees, available to senior officers of the Bank or to spouses or common-law partners, or children who are less than 18 years of age of senior officers of the Bank, on terms and conditions more favourable than those offered to the public, provided the financial services are offered by the Bank to its employees on those favourable terms and conditions;

4. Require Bank management to establish procedures to enable the Bank to verify that its transactions with related parties of the Bank comply with Part XI of the Bank Act and to review those procedures and their effectiveness. These procedures should, among other things, enable management to verify that:

   - all related party transactions are on terms and conditions at least as favourable to the Bank as market terms and conditions, other than transactions referred to in clauses 2 and 3 above;
   - loans to full-time senior officers, other than margin loans and mortgages on their principal residences, do not exceed the greater of twice their annual salaries and $100,000;

- aggregate loans or guarantees to, and investments in the securities of any related party (subject to certain exceptions) do not exceed 2% of the Bank's regulatory capital unless the approval of 2/3 of the Board has been obtained; and
- aggregate loans or guarantees to, and investments in the securities of all related parties (subject to certain exceptions) do not exceed 50% of the Bank's regulatory capital;

5. Review the practices of the Bank to identify any transactions with related parties of the Bank that may have a material effect on the stability or solvency of the Bank;
6. Monitor the procedures established by the Board to resolve conflicts of interest, including techniques for the identification of potential conflict situations and for restricting the use of confidential information;
7. Monitor the procedures established by the Board to provide disclosure to customers of the Bank of information that is required to be disclosed by the Bank Act, and for dealing with and reporting complaints made by customers of the Bank who have requested or received products or services in Canada and to satisfy itself that these procedures are being adhered to by the Bank;
8. Review and approve the Risk Culture & Conduct Risk Management Summary Framework;
9. Review and, if appropriate, recommend for Board approval the Scotiabank Code of Conduct which includes the standards of conduct and ethical behaviour for employees, officers and directors of the Bank and its subsidiaries and recommend for approval by the Board any exceptions from the Scotiabank Code of Conduct , as appropriate;
10. Review reports from Global Compliance on compliance with the Scotiabank Code of Conduct and any instances of material deviation therefrom with corrective actions taken;
11. Review the annual letter of certification from the Chief Executive Officer on the Bank's compliance with the Scotiabank Code of Conduct;
12. Monitor the Bank's exposure to material conduct risk and review the Bank's conduct risk management practices including its identification, measurement, monitoring and assessment of conduct risk;
13. Review conduct risk matters reported to the Committee included in the Chief Compliance Officer Report;
14. Review with management the results of their assessment of the Bank's conduct risk and their plans to remediate any material deficiencies identified; and
15. Monitor the procedures established by the Bank to mitigate conduct risk.

COMMITTEE OPERATIONS

F. Reporting

After each meeting of the Committee, the Committee is required to report to the Board on matters reviewed by the Committee. The Committee shall also report as required to the Risk Committee on relevant issues.

The Chair of the Committee shall review, for completeness, the Board's report to OSFI with respect to conduct review matters on the Committee's activities during the year. This report must be filed within 90 days after the Bank's financial year-end.

The Committee shall review and assess the adequacy of this Charter on an annual basis and report the results of this review to the Corporate Governance Committee of the Board.

G. Composition

Structure

The Committee shall consist of a minimum of three Directors. No member of the Committee may serve on more than three audit committees of public company boards without the consent of the Corporate Governance Committee and the Board.

Each member must be financially literate or become financially literate within a reasonable period of time subsequent to his/her appointment to the Committee. At least one member must be a financial expert. There should also be a reasonable representation of other key competencies on the Committee, as determined by the Corporate Governance Committee.

Independence

The Committee is composed entirely of independent directors as defined in applicable laws, rules and regulations and as determined pursuant to the Director Independence Standards approved by the Board for Committee members.

No member of the Committee may be an officer or employee of the Bank or of any of its subsidiaries or affiliates. No member may be a person who is affiliated with the Bank.

Directors' fees are the only compensation a member of the Committee may be paid by the Bank.

Appointment of Committee Members

Members of the Committee are appointed or reappointed annually by the Board, upon the recommendation of the Corporate Governance Committee, such appointments to take effect immediately following the annual meeting of the shareholders of the Bank. Members of the Committee shall hold office until their successors are appointed, or until they cease to be Directors of the Bank.

Vacancies

Vacancies may be filled for the remainder of the current term of appointment of members of the Committee by the Board, subject to the requirements under the headings "Structure" and "Independence" above.

Appointment and Qualifications of Committee Chair

The Board shall appoint from the Committee membership, a Chair for the Committee to preside at meetings. In the absence of the Chair, one of the other members of the Committee present shall be chosen by the Committee to preside at that meeting.

The Chair for the Committee must have all of the qualifications for Committee membership and have accounting or related financial management expertise.

H. Meetings

Calling of Meetings

Meetings of the Committee may be called by the Chair, by any two members of the Committee or the external auditor. Members may participate in meetings in person or by telephone, electronic or other communications facilities.

Written resolutions in lieu of a meeting are permitted, solely in accordance with the Bank Act.

The Committee shall hold an in camera session immediately prior to and/or following the conclusion of the regular agenda matters. The Committee shall also hold in camera sessions, separately at each Committee meeting, with each of the

Chief Financial Officer, Chief Compliance Officer, Chief Auditor and the external auditor. The Committee shall also meet separately, at least quarterly, with management.

To facilitate communication between the Committee and the Risk Committee, the Chair of the Risk Committee shall receive notice of all Committee meetings and may attend Committee meetings by invitation as a non-voting observer.

The Committee may invite any director, officer or employee or any other person to attend meetings to assist the Committee with its deliberations.

Notice of Meetings

Notice of meeting of the Committee shall be sent by prepaid mail, by personal delivery or other means of transmitted or recorded communication or by telephone at least 12 hours before the meeting to each member of the Committee at the member's address or communication number last recorded with the Corporate Secretary. A Committee member may in any manner waive notice of a meeting of the Committee and attendance at a meeting is a waiver of notice of the meeting, except where a member attends for the express purpose of objecting to the transaction of any business on the ground that the meeting is not lawfully called.

Notice to the Internal Auditor and External Auditor

The Chief Auditor and the external auditor are entitled to receive notice of every meeting of the Committee and, at the expense of the Bank, to attend and be heard at each meeting and to have the opportunity to discuss matters with the independent directors, without the presence of management.

Frequency

The Committee shall meet at least quarterly.

Quorum

The quorum for a meeting of the Committee shall be a majority of its members, subject to a minimum of 2 members.

Secretary and Minutes

The Corporate Secretary or, in the absence of the Corporate Secretary, an Assistant Corporate Secretary of the Bank shall act as Secretary of the Committee.

Minutes of meetings of the Committee shall be recorded and maintained by the Corporate Secretary and subsequently presented to the Committee and to the Board, if required by the Board.

This Charter was last reviewed and approved by the Board on June 29, 2021.

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ENHANCED DISCLOSURE TASK FORCE (EDTF) RECOMMENDATIONS

The Enhanced Disclosure Task Force (EDTF) was established by the Financial Stability Board in May 2012 with the goal of developing fundamental disclosure principles. On October 29, 2012 the EDTF published its report, "Enhancing the Risk Disclosures of Banks", which sets forth recommendations around improving risk disclosures and identifies existing leading practice risk disclosures.

Below is the index of all these recommendations to facilitate easy reference in the Bank's annual report and other public disclosure documents available on www.scotiabank.com/investorrelations.

Reference Table for EDTF

			Pages		
Type of risk	Number	Disclosure	MD&A	Financial Statements	Supplementary Regulatory Capital Disclosures
General	1	The index of risks to which the business is exposed.	14		
	2	The Bank's risk to terminology, measures and key parameters.	82-85		
	3	Top and emerging risks, and the changes during the reporting period.	87-88, 92-98		
	4	Discussion on the regulatory development and plans to meet new regulatory ratios.	61-64, 106-109, 122-124		
Risk governance, risk management and business model	5	The Bank's Risk Governance structure.	79-81		
	6	Description of risk culture and procedures applied to support the culture.	82-85		
	7	Description of key risks from the Bank's business model.	86		
	8	Stress testing use within the Bank's risk governance and capital management.	82-83		
Capital Adequacy and risk-weighted assets	9	Pillar 1 capital requirements, and the impact for global systemically important banks.	61-64	216	3
	10	a) Regulatory capital components.	65		18-21
		b) Reconciliation of the accounting balance sheet to the regulatory balance sheet.			15-16
	11	Flow statement of the movements in regulatory capital since the previous reporting period, including changes in common equity tier 1, additional tier 1 and tier 2 capital.	66-67		76
	12	Discussion of targeted level of capital, and the plans on how to establish this.	61-64		
	13	Analysis of risk-weighted assets by risk type, business, and market risk RWAs.	69-73, 86, 131	185, 240	5, 34, 36-47, 59-61, 65, 77, 83
	14	Analysis of the capital requirements for each Basel asset class.	69-73	185, 233-240	13-14, 34-48, 58-61, 65, 70-73
	15	Tabulate credit risk in the Banking Book.	69-73	235	13-14, 34-48, 70-73
	16	Flow statements reconciling the movements in risk-weighted assets for each risk-weighted asset type.	69-73		49, 64, 76
	17	Discussion of Basel III Back-testing requirement including credit risk model performance and validation.	70-72		50-53, 81
Liquidity Funding	18	Analysis of the Bank's liquid assets.	104-109		
	19	Encumbered and unencumbered assets analyzed by balance sheet category.	106		
	20	Consolidated total assets, liabilities and off-balance sheet commitments analyzed by remaining contractual maturity at the balance sheet date.	110-112		
	21	Analysis of the Bank's sources of funding and a description of the Bank's funding strategy.	109-110		
Market Risk	22	Linkage of market risk measures for trading and non-trading portfolios and the balance sheet.	103		
	23	Discussion of significant trading and non-trading market risk factors.	99-104	239-240	
	24	Discussion of changes in period on period VaR results as well as VaR assumptions, limitations, backtesting and validation.	99-104	239-240	
	25	Other risk management techniques e.g. stress tests, stressed VaR, tail risk and market liquidity horizon.	99-104	240	
Credit Risk	26	Analysis of the aggregate credit risk exposures, including details of both personal and wholesale lending.	92-98,125-131	194-196, 236-238	5, 34, 36-47, 59-61
	27	Discussion of the policies for identifying impaired loans, defining impairments and renegotiated loans, and explaining loan forbearance policies.		163-165, 196	
	28	Reconciliations of the opening and closing balances of impaired loans and impairment allowances during the year.	94, 125-126, 128-129	196	31-32
	29	Analysis of counterparty credit risk that arises from derivative transactions.	90-91	183-186	82
	30	Discussion of credit risk mitigation, including collateral held for all sources of credit risk.	90-91, 95		
Other risks	31	Quantified measures of the management of operational risk.	73, 113		
	32	Discussion of publicly known risk items.	78		

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FORWARD LOOKING STATEMENTS

From time to time, our public communications often include oral or written forward-looking statements. Statements of this type are included in this document, and may be included in other filings with Canadian securities regulators or the U.S. Securities and Exchange Commission, or in other communications. In addition, representatives of the Bank may include forward-looking statements orally to analysts, investors, the media and others. All such statements are made pursuant to the "safe harbor" provisions of the U.S. Private Securities Litigation Reform Act of 1995 and any applicable Canadian securities legislation. Forward-looking statements may include, but are not limited to, statements made in this document, the Management's Discussion and Analysis in the Bank's 2021 Annual Report under the headings "Outlook" and in other statements regarding the Bank's objectives, strategies to achieve those objectives, the regulatory environment in which the Bank operates, anticipated financial results, and the outlook for the Bank's businesses and for the Canadian, U.S. and global economies. Such statements are typically identified by words or phrases such as "believe," "expect," "foresee," "forecast," "anticipate," "intend," "estimate," "plan," "goal," "project," and similar expressions of future or conditional verbs, such as "will," "may," "should," "would" and "could."

By their very nature, forward-looking statements require us to make assumptions and are subject to inherent risks and uncertainties, which give rise to the possibility that our predictions, forecasts, projections, expectations or conclusions will not prove to be accurate, that our assumptions may not be correct and that our financial performance objectives, vision and strategic goals will not be achieved.

We caution readers not to place undue reliance on these statements as a number of risk factors, many of which are beyond our control and effects of which can be difficult to predict, could cause our actual results to differ materially from the expectations, targets, estimates or intentions expressed in such forward-looking statements.

The future outcomes that relate to forward-looking statements may be influenced by many factors, including but not limited to: general economic and market conditions in the countries in which we operate; changes in currency and interest rates; increased funding costs and market volatility due to market illiquidity and competition for funding; the failure of third parties to comply with their obligations to the Bank and its affiliates; changes in monetary, fiscal, or economic policy and tax legislation and interpretation; changes in laws and regulations or in supervisory expectations or requirements, including capital, interest rate and liquidity requirements and guidance, and the effect of such changes on funding costs; changes to our credit ratings; operational and infrastructure risks; reputational risks; the accuracy and completeness of information the Bank receives on customers and counterparties; the timely development and introduction of new products and services, and the extent to which products or services previously sold by the Bank require the Bank to incur liabilities or absorb losses not contemplated at their origination; our ability to execute our strategic plans, including the successful completion of acquisitions and dispositions, including obtaining regulatory approvals; critical accounting estimates and the effect of changes to accounting standards, rules and interpretations on these estimates; global capital markets activity; the Bank's ability to attract, develop and retain key executives; the evolution of various types of fraud or other criminal behaviour to which the Bank is exposed; disruptions in or attacks (including cyber-attacks) on the Bank's information technology, internet, network access, or other voice or data communications systems or services; increased competition in the geographic and in business areas in which we operate, including through internet and mobile banking and non-traditional competitors; exposure related to significant litigation and regulatory matters; climate change and other environmental and social risks, including sustainability that may arise, including from the Bank's business activities; the occurrence of natural and unnatural catastrophic events and claims resulting from such events; the emergence of widespread health emergencies or pandemics, including the magnitude and duration of the COVID-19 pandemic and its impact on the global economy, financial market conditions and the Bank's business, results of operations, financial condition and prospects; and the Bank's anticipation of and success in managing the risks implied by the foregoing. A substantial amount of the Bank's business involves making loans or otherwise committing resources to specific companies, industries or countries. Unforeseen events affecting such borrowers, industries or countries could have a material adverse effect on the Bank's financial results, businesses, financial condition or liquidity. These and other factors may cause the Bank's actual performance to differ materially from that contemplated by forward-looking statements. The Bank cautions that the preceding list is not exhaustive of all possible risk factors and other factors could also adversely affect the Bank's results, for more information, please see the "Risk Management" section of the Bank's 2021 Annual Report, as may be updated by quarterly reports.

Material economic assumptions underlying the forward-looking statements contained in this document are set out in the 2021 Annual Report under the headings "Outlook", as updated by quarterly reports. The "Outlook" sections are based on the Bank's views and the actual outcome is uncertain. Readers should consider the above-noted factors when reviewing these sections. When relying on forward-looking statements to make decisions with respect to the Bank and its securities, investors and others should carefully consider the preceding factors, other uncertainties and potential events.

Any forward-looking statements contained in this document represent the views of management only as of the date hereof and are presented for the purpose of assisting the Bank's shareholders and analysts in understanding the Bank's financial position, objectives and priorities, and anticipated financial performance as at and for the periods ended on the dates presented, and may not be appropriate for other purposes. 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 or on its behalf.

Additional information relating to the Bank, including the Bank's Annual Information Form, can be located on the SEDAR website at www.sedar.com and on the EDGAR section of the SEC's website at www.sec.gov.

November 30, 2021

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MANAGEMENT'S DISCUSSION & ANALYSIS

The Management's Discussion and Analysis (MD&A) is provided to enable readers to assess the Bank's financial condition and results of operations as at and for the year ended October 31, 2021. The MD&A should be read in conjunction with the Bank's 2021 Consolidated Financial Statements, including the Notes. This MD&A is dated November 30, 2021.

Additional information relating to the Bank, including the Bank's 2021 Annual Report, are available on the Bank's website at www.scotiabank.com. As well, the Bank's 2021 Annual Report and Annual Information Form are available on the SEDAR website at www.sedar.com and on the EDGAR section of the SEC's website at www.sec.gov.

Non-GAAP Measures

The Bank uses a number of financial measures to assess its performance. Some of these measures are not calculated in accordance with Generally Accepted Accounting Principles (GAAP), which are based on International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB), are not defined by GAAP and do not have standardized meanings that would ensure consistency and comparability among companies using these measures. The Bank believes that non-GAAP measures are useful as they provide readers with a better understanding of how management assesses performance. These non-GAAP measures are used throughout this report and defined below.

Adjusted results and diluted earnings per share

The following table presents a reconciliation of GAAP Reported financial results to Non–GAAP Adjusted financial results. The financial results have been adjusted for the following:

1. Adjustments impacting current and prior periods:

A. Amortization of Acquisition-related intangible assets:

These costs relate to the amortization of intangibles recognized upon the acquisition of businesses and are recorded in the Canadian Banking, International Banking and Global Wealth Management operating segments.

B. Restructuring and other provisions, recorded in Q4, 2021:

The Bank recorded a restructuring charge of $126 million pre-tax, substantially related to International Banking for the cost of reducing branches and full-time employees, driven by the accelerated customer adoption of digital channels and process automation. These efficiencies are a result of the Bank's commitment to simplify processes and optimize distribution channels to run businesses more effectively while meeting changing customer needs. This charge was recorded in the Other operating segment.

The Bank recorded settlement and litigation provisions in the amount of $62 million pre-tax in the Other operating segment in connection with the Bank's former metals business.

2. Adjustments impacting prior periods only:

A. Acquisition and divestiture-related amounts, which are defined as follows:

i. Acquisition-related integration costs – Includes costs that were incurred and related to integrating previously acquired businesses. These costs were recorded in the Canadian Banking, International Banking and Global Wealth Management operating segments. The costs relate to the following acquisitions:

- Banco Cencosud, Peru (*closed Q2, 2019*)
- Banco Dominicano del Progreso, Dominican Republic (*closed Q2, 2019*)
- MD Financial Management, Canada (*closed Q4, 2018*)
- Jarislowsky, Fraser Limited, Canada (*closed Q3, 2018*)
- Citibank consumer and small and medium enterprise operations, Colombia (*closed Q3, 2018*)
- BBVA, Chile (*closed Q3, 2018*)

ii. Net (gain)/loss on divestitures – The Bank announced a number of divestitures in accordance with its strategy to reposition the Bank. The net (gain)/loss on divestitures is recorded in the Other operating segment (refer to Note 37 for further details):

- Operations in British Virgin Islands (*closed Q3, 2020*)
- Equity-accounted investment in Thanachart Bank, Thailand (*closed Q1, 2020*)
- Colfondos AFP, Colombia (*closed Q1, 2020*)
- Operations in Puerto Rico and USVI (*closed Q1, 2020*)
- Insurance and banking operations in El Salvador (*closed Q1, 2020*)
- Banking operations in the Caribbean: Anguilla, Dominica, Grenada, St. Kitts & Nevis, St. Lucia, St. Maarten, St. Vincent & the Grenadines (*closed Q4, 2019*)
- Insurance and pension operations in the Dominican Republic (*closed Q2, 2019*)

iii. Day 1 provision for credit losses on acquired performing financial instruments, as required by IFRS 9. The accounting standard does not differentiate between originated and purchased performing loans and as such, requires the same accounting treatment for both. These credit losses are considered Acquisition-related costs in periods where applicable and are recorded in the International Banking segment. The provision for 2019 relates to Banco Cencosud, Peru and Banco Dominicano del Progreso, Dominican Republic.

B. Valuation-related adjustments, recorded in Q1, 2020:

The Bank modified its allowance for credit losses measurement methodology by adding an additional, more severe pessimistic scenario, consistent with developing practice among major international banks in applying IFRS 9, and the Bank's prudent approach to expected credit loss provisioning. The modification resulted in an increase in provision for credit losses of $155 million which was recorded in Canadian Banking, International Banking, Global Wealth Management and Global Banking and Markets operating segments. The Bank enhanced its fair value methodology primarily relating to uncollateralized OTC derivatives which resulted in a pre-tax charge of $116 million. This charge was recorded in the Global Banking and Markets and Other operating segments. The Bank also recorded an impairment loss in the Other operating segment of $44 million pre-tax, related to one software asset.

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T1 Reconciliation of reported and adjusted results and diluted earnings per share

As at October 31 ($ millions)	2021	2020	2019
Reported Results			
Net interest income	**$ 16,961**	$ 17,320	$ 17,177
Non-interest income	**14,291**	14,016	13,857
Total revenue	**31,252**	31,336	31,034
Provision for credit losses	**1,808**	6,084	3,027
Non-interest expenses	**16,618**	16,856	16,737
Income before taxes	**12,826**	8,396	11,270
Income tax expense	**2,871**	1,543	2,472
Net income	**$ 9,955**	$ 6,853	$ 8,798
Net income attributable to non-controlling interests in subsidiaries (NCI)	**331**	75	408
Net income attributable to equity holders	**9,624**	6,778	8,390
Preferred shareholders and other equity instrument holders	**233**	196	182
Net income attributable to common shareholders	**9,391**	6,582	8,208
Diluted earnings per share *(in dollars)*	**$ 7.70**	$ 5.30	$ 6.68
Adjustments			
Amortization of Acquisition-related intangible assets, excluding software (1)	**$ 103**	$ 106	$ 116
Restructuring and other provisions(1)	**188**	–	–
Acquisition-related integration costs(1)	**–**	177	178
Net (gain)/ loss on divestitures(2)	**–**	(298)	148
Day 1 provision for credit losses on acquired performing financial instruments (2)	**–**	–	151
Allowance for credit losses – Additional scenario (3)	**–**	155	–
Derivatives valuation adjustment(4)	**–**	116	–
Impairment charge on software asset (1)	**–**	44	–
Adjustments (Pre-tax)	**291**	300	593
Income tax expense/(benefit)	**(77)**	(192)	18
Adjustments (After tax)	**214**	108	611
Adjustments attributable to NCI	**(10)**	(60)	(50)
Adjustments (After tax and NCI)	**$ 204**	$ 48	$ 561
Adjusted Results			
Net interest income	**$ 16,961**	$ 17,320	$ 17,177
Non-interest income	**14,291**	13,819	13,984
Total revenue	**31,252**	31,139	31,161
Provision for credit losses	**1,808**	5,929	2,876
Non-interest expenses	**16,327**	16,514	16,422
Income before taxes	**13,117**	8,696	11,863
Income tax expense	**2,948**	1,735	2,454
Net income	**$ 10,169**	$ 6,961	$ 9,409
Net income attributable to NCI	**341**	135	458
Net income attributable to equity holders	**9,828**	6,826	8,951
Preferred shareholders and other equity instrument holders	**233**	196	182
Net income attributable to common shareholders	**$ 9,595**	$ 6,630	$ 8,769
Adjusted diluted earnings per share			
Adjusted net income attributable to common shareholders	**$ 9,595**	$ 6,630	$ 8,769
Dilutive impact of share-based payment options and others	**48**	38	160
Adjusted net income attributable to common shareholders (diluted)	**$ 9,643**	$ 6,668	$ 8,929
Weighted average number of basic common shares outstanding *(millions)*	**1,214**	1,212	1,222
Dilutive impact of share-based payment options and others *(millions)*	**11**	31	29
Adjusted weighted average number of diluted common shares outstanding *(millions)*	**1,225**	1,243	1,251
Adjusted diluted earnings per share *(in dollars)(5)*	**$ 7.87**	$ 5.36	$ 7.14
Impact of adjustments on diluted earnings per share *(in dollars)*	**$ 0.17**	$ 0.06	$ 0.46

(1) Recorded in non-interest expenses.
(2) (Gain)/Loss on divestitures is recorded in non-interest income; costs related to divestitures are recorded in non-interest expenses.
(3) Recorded in provision for credit losses.
(4) Recorded in non-interest income.
(5) Earnings per share calculations are based on full dollar and share amounts.

T1A Reconciliation of reported and adjusted results by business line

($ millions)	Canadian Banking	International Banking	Global Wealth Management	Global Banking and Markets	Other	Total
	For the year ended October 31, 2021(1)					
Reported Results						
Net interest income	$ 8,030	$ 6,625	$ 628	$ 1,436	$ 242	$ 16,961
Non-interest income	2,868	2,993	4,752	3,587	91	14,291
Total revenue	10,898	9,618	5,380	5,023	333	31,252
Provision for credit losses	333	1,574	2	(100)	(1)	1,808
Non-interest expenses	4,951	5,254	3,255	2,458	700	16,618
Income before taxes	5,614	2,790	2,123	2,665	(366)	12,826
Income tax expense	1,459	635	549	590	(362)	2,871
Net income	$ 4,155	$ 2,155	$ 1,574	$ 2,075	$ (4)	$ 9,955
Net income attributable to non-controlling interests in subsidiaries (NCI)	–	332	9	–	(10)	331
Net income attributable to equity holders	$ 4,155	$ 1,823	$ 1,565	$ 2,075	$ 6	$ 9,624
Adjustments						
Amortization of Acquisition-related intangible assets, excluding software (2)	$ 22	$ 45	$ 36	$ –	$ –	$ 103
Restructuring and other provisions(2)	–	–	–	–	188	188
Adjustments (Pre-tax)	22	45	36	–	188	291
Income tax expense/(benefit)	(6)	(13)	(9)	–	(49)	(77)
Adjustments (After tax)	16	32	27	–	139	214
Adjustment attributable to NCI	–	–	–	–	(10)	(10)
Adjustments (After tax and NCI)	$ 16	$ 32	$ 27	$ –	$ 129	$ 204
Adjusted Results						
Net interest income	$ 8,030	$ 6,625	$ 628	$ 1,436	$ 242	$ 16,961
Non-interest income	2,868	2,993	4,752	3,587	91	14,291
Total revenue	10,898	9,618	5,380	5,023	333	31,252
Provision for credit losses	333	1,574	2	(100)	(1)	1,808
Non-interest expenses	4,929	5,209	3,219	2,458	512	16,327
Income before taxes	5,636	2,835	2,159	2,665	(178)	13,117
Income tax expense	1,465	648	558	590	(313)	2,948
Net income	$ 4,171	$ 2,187	$ 1,601	$ 2,075	$ 135	$ 10,169
Net income attributable to NCI	–	332	9	–	–	341
Net income attributable to equity holders	$ 4,171	$ 1,855	$ 1,592	$ 2,075	$ 135	$ 9,828

(1) Refer to Business Line Overview on page 42.
(2) Recorded in non-interest expenses.

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T1A Reconciliation of reported and adjusted results by business line

($ millions)	Canadian Banking	International Banking	Global Wealth Management	Global Banking and Markets	Other	Total
	For the year ended October 31, 2020(1)					
Reported Results						
Net interest income	$ 7,838	$ 7,603	$ 575	$ 1,435	$ (131)	$ 17,320
Non-interest income	2,461	3,207	4,009	3,947	392	14,016
Total revenue	10,299	10,810	4,584	5,382	261	31,336
Provision for credit losses	2,073	3,613	7	390	1	6,084
Non-interest expenses	4,811	5,943	2,878	2,473	751	16,856
Income before taxes	3,415	1,254	1,699	2,519	(491)	8,396
Income tax expense	879	182	437	564	(519)	1,543
Net income	$ 2,536	$ 1,072	$ 1,262	$ 1,955	$ 28	$ 6,853
Net income attributable to non-controlling interests in subsidiaries (NCI)	–	92	10	–	(27)	75
Net income attributable to equity holders	$ 2,536	$ 980	$ 1,252	$ 1,955	$ 55	$ 6,778
Adjustments						
Amortization of Acquisition-related intangible assets, excluding software (2)	$ 22	$ 47	$ 37	$ –	$ –	$ 106
Acquisition-related integration costs(2)	–	154	23	–	–	177
Net (gain)/loss on divestitures(3)	–	–	–	–	(298)	(298)
Allowance for credit losses - Additional scenario (4)	71	77	1	6	–	155
Derivatives valuation adjustment(5)	–	–	–	102	14	116
Impairment charge on software asset (2)	–	–	–	–	44	44
Adjustments (Pre-tax)	93	278	61	108	(240)	300
Income tax expense/(benefit)	(25)	(78)	(16)	(29)	(44)	(192)
Adjustments (After tax)	68	200	45	79	(284)	108
Adjustment attributable to NCI	–	(32)	–	–	(28)	(60)
Adjustments (After tax and NCI)	$ 68	$ 168	$ 45	$ 79	$ (312)	$ 48
Adjusted Results						
Net interest income	$ 7,838	$ 7,603	$ 575	$ 1,435	$ (131)	$ 17,320
Non-interest income	2,461	3,207	4,009	4,049	93	13,819
Total revenue	10,299	10,810	4,584	5,484	(38)	31,139
Provision for credit losses	2,002	3,536	6	384	1	5,929
Non-interest expenses	4,789	5,742	2,818	2,473	692	16,514
Income before taxes	3,508	1,532	1,760	2,627	(731)	8,696
Income tax expense	904	260	453	593	(475)	1,735
Net income	$ 2,604	$ 1,272	$ 1,307	$ 2,034	$ (256)	$ 6,961
Net income attributable to NCI	–	124	10	–	1	135
Net income attributable to equity holders	$ 2,604	$ 1,148	$ 1,297	$ 2,034	$ (257)	$ 6,826

(1) Refer to Business Line Overview on page 42.
(2) Recorded in non-interest expenses.
(3) (Gain)/loss on divestitures is recorded in non-interest income; costs related to divestitures are recorded in non-interest expenses.
(4) Recorded in provision for credit losses.
(5) Recorded in non-interest income.

T1A Reconciliation of reported and adjusted results by business line

	For the year ended October 31, 2019(1)					
($ millions)	Canadian Banking	International Banking	Global Wealth Management	Global Banking and Markets	Other	Total
Reported Results						
Net interest income	$ 7,848	$ 8,353	$ 564	$ 1,396	$ (984)	$ 17,177
Non-interest income	2,616	4,366	3,937	3,084	(146)	13,857
Total revenue	10,464	12,719	4,501	4,480	(1,130)	31,034
Provision for credit losses	972	2,076	–	(22)	1	3,027
Non-interest expenses	4,772	6,596	2,905	2,463	1	16,737
Income before taxes	4,720	4,047	1,596	2,039	(1,132)	11,270
Income tax expense	1,232	909	412	505	(586)	2,472
Net income	$ 3,488	$ 3,138	$ 1,184	$ 1,534	$ (546)	$ 8,798
Net income attributable to non-controlling interests in subsidiaries (NCI)	–	373	18	–	17	408
Net income attributable to equity holders	$ 3,488	$ 2,765	$ 1,166	$ 1,534	$ (563)	$ 8,390
Adjustments						
Amortization of Acquisition-related intangible assets, excluding software (2)	$ 22	$ 55	$ 39	$ –	$ –	$ 116
Acquisition-related integration costs(2)	–	151	27	–	–	178
Net (gain)/loss on divestitures(3)	–	–	–	–	148	148
Day 1 provision for credit losses on acquired performing financial instruments (4)	–	$ 151	–	–	–	151
Adjustments (Pre-tax)	22	357	66	–	148	593
Income tax expense/(benefit)	(6)	(103)	(17)	–	144	18
Adjustments (After tax)	16	254	49	–	292	611
Adjustment attributable to NCI	–	(66)	–	–	16	(50)
Adjustments (After tax and NCI)	$ 16	$ 188	$ 49	$ –	$ 308	$ 561
Adjusted Results						
Net interest income	$ 7,848	$ 8,353	$ 564	$ 1,396	$ (984)	$ 17,177
Non-interest income	2,616	4,366	3,937	3,084	(19)	13,984
Total revenue	10,464	12,719	4,501	4,480	(1,003)	31,161
Provision for credit losses	972	1,925	–	(22)	1	2,876
Non-interest expenses	4,750	6,390	2,839	2,463	(20)	16,422
Income before taxes	4,742	4,404	1,662	2,039	(984)	11,863
Income tax expense	1,238	1,012	429	505	(730)	2,454
Net income	$ 3,504	$ 3,392	$ 1,233	$ 1,534	$ (254)	$ 9,409
Net income attributable to NCI	–	439	18	–	1	458
Net income attributable to equity holders	$ 3,504	$ 2,953	$ 1,215	$ 1,534	$ (255)	$ 8,951

(1) Refer to Business Line Overview on page 42.
(2) Recorded in non-interest expenses.
(3) Loss/(gain) on divestitures are recorded innon-interest income; costs related to divestitures are recorded innon-interest expenses.
(4) Recorded in provision for credit losses.

International Banking business segment results are analyzed on a constant dollar basis. Under the constant dollar basis, prior period amounts are recalculated using current period average foreign currency rates. The following table presents the reconciliation between reported and constant dollar results for International Banking for prior periods. The Bank believes that constant dollar is useful for readers in assessing ongoing business performance. The tables below are computed on a basis that is different than the table "Impact of foreign currency translation" in Overview of Performance on page 30.

T2 Reconciliation of International Banking's reported and adjusted results and constant dollar results

For the year ended October 31 ($ millions)	2020			2019		
(Taxable equivalent basis)	Reported	Foreign exchange	Constant dollar	Reported	Foreign exchange	Constant dollar
Net interest income	$ 7,603	$ 543	$ 7,060	$ 8,353	$ 1,031	$ 7,322
Non-interest income	3,207	192	3,015	4,366	385	3,981
Total revenue	10,810	735	10,075	12,719	1,416	11,303
Provision for credit losses	3,613	244	3,369	2,076	283	1,793
Non-interest expenses	5,943	340	5,603	6,596	733	5,863
Income tax expense	182	23	159	909	107	802
Net Income	$ 1,072	$ 128	$ 944	$ 3,138	$ 293	$ 2,845
Net income attributable to non-controlling interest in subsidiaries	$ 92	$ 5	$ 87	$ 373	$ 46	$ 327
Net income attributable to equity holders of the Bank	$ 980	$ 123	$ 857	$ 2,765	$ 247	$ 2,518
Other measures						
Average assets ($ billions)	$ 206	$ 12	$ 194	$ 201	$ 21	$ 180
Average liabilities ($ billions)	$ 155	$ 8	$ 147	$ 153	$ 16	$ 137

For the year ended October 31 ($ millions)	2020			2019		
(Taxable equivalent basis)	Adjusted	Foreign exchange	Constant dollar adjusted	Adjusted	Foreign exchange	Constant dollar adjusted
Net interest income	$ 7,603	$ 543	$ 7,060	$ 8,353	$ 1,031	$ 7,322
Non-interest income	3,207	192	3,015	4,366	385	3,981
Total revenue	10,810	735	10,075	12,719	1,416	11,303
Provision for credit losses	3,536	239	3,297	1,925	255	1,670
Non-interest expenses	5,742	328	5,414	6,390	707	5,683
Income tax expense	260	29	231	1,012	122	890
Net Income	$ 1,272	$ 139	$ 1,133	$ 3,392	$ 332	$ 3,060
Net income attributable to non-controlling interest in subsidiaries	$ 124	$ 7	$ 117	$ 439	$ 57	$ 382
Net income attributable to equity holders of the Bank	$ 1,148	$ 132	$ 1,016	$ 2,953	$ 275	$ 2,678

Earning assets
Earning assets are defined as income generating assets which include interest-bearing deposits with banks, trading assets, investment securities, investments in associates, securities borrowed or purchased under resale agreements, loans net of allowances, and customers' liability under acceptances.

Non-earning assets
Non-earning assets are defined as cash and non-interest bearing deposits with financial institutions, precious metals, derivative financial instruments, property and equipment, goodwill and other intangible assets, deferred tax assets and other assets.

Core earning assets
Core earning assets are defined as earning assets excluding investments in associates, customers' liability under acceptances, and trading assets, securities borrowed or purchased under resale agreements, and assets related to capital markets businesses.

Core net interest income
Core net interest income is defined as net interest income earned from core earning assets.

Net interest margin
Net interest margin is calculated as core net interest income for the business line divided by average core earning assets.

T3 Average earning assets, average total assets, average core earning assets and net interest margin by business line

For the year ended October 31, 2021 ($ millions)	Canadian Banking	International Banking	Global Wealth Management	Global Banking and Markets	Other	Total
Deposits with financial institutions	$ 146	$ 16,014	$ 742	$ 237	$ 58,423	$ 75,562
Trading assets	–	6,352	14	134,639	1,850	142,855
Securities purchased under resale agreements and securities borrowed	–	2,919	–	116,896	3	119,818
Investment securities including investments in associates	1,080	16,500	302	6,097	68,229	92,208
Net loans and acceptances	375,444	137,121	17,420	106,020	(4,143)	631,862
Total earning assets	$ 376,670	$ 178,906	$ 18,478	$ 363,889	$ 124,362	$ 1,062,305
Non-earning assets	4,102	15,218	10,487	37,020	28,081	94,908
Total assets	$ 380,772	$ 194,124	$ 28,965	$ 400,909	$ 152,443	$ 1,157,213
Total earning assets	376,670	178,906	18,478	363,889	124,362	1,062,305
Less:						
Investments in associates	783	1,646	–	–	62	2,491
Trading assets	–	5,812	–	134,372	1,849	142,033
Securities purchased under resale agreements and securities borrowed	–	–	–	116,829	–	116,829
Customers' liability under acceptances	16,599	42	4,077	10,413	(14,679)	16,452
Other deductions	–	642	–	21,681	10,484	32,807
Core earning assets	$ 359,288	$ 170,764	$ 14,401	$ 80,594	$ 126,646	$ 751,693
Net interest margin						
Net interest income	8,030	6,625	628	1,436	242	16,961
Less: Non-core net interest income	–	50	–	138	2	190
Core net interest income	$ 8,030	$ 6,575	$ 628	$ 1,298	$ 240	$ 16,771
Net interest margin	2.23%	3.85%	4.36%	1.61%	nm(1)	2.23%

(1) Not meaningful.

For the year ended October 31, 2020 ($ millions)	Canadian Banking	International Banking	Global Wealth Management	Global Banking and Markets	Other	Total
Deposits with financial institutions	$ 153	$ 17,790	$ 1,009	$ 956	$ 46,056	$ 65,964
Trading assets	–	4,852	17	119,637	3,614	128,120
Securities purchased under resale agreements and securities borrowed	–	2,412	–	125,741	136	128,289
Investment securities including investments in associates	976	15,573	300	5,730	82,504	105,083
Net loans and acceptances	353,540	147,681	14,109	114,265	(3,957)	625,638
Total earning assets	$ 354,669	$ 188,308	$ 15,435	$ 366,329	$ 128,353	$ 1,053,094
Non-earning assets	4,101	18,074	10,601	45,796	28,918	107,490
Total assets	$ 358,770	$ 206,382	$ 26,036	$ 412,125	$ 157,271	$ 1,160,584
Total earning assets	354,669	188,308	15,435	366,329	128,353	1,053,094
Less:						
Investments in associates	713	1,868	–	–	87	2,668
Trading assets	–	4,399	–	119,395	1,113	124,907
Securities purchased under resale agreements and securities borrowed	–	–	–	125,701	–	125,701
Customers' liability under acceptances	13,584	42	2,748	10,669	(10,996)	16,047
Other deductions	–	1,194	–	18,296	7,294	26,784
Core earning assets	$ 340,372	$ 180,805	$ 12,687	$ 92,268	$ 130,855	$ 756,987
Net interest margin						
Net interest income	7,838	7,603	575	1,435	(131)	17,320
Less: Non-core net interest income	–	39	–	78	5	122
Core net interest income	$ 7,838	$ 7,564	$ 575	$ 1,357	$ (136)	$ 17,198
Net interest margin	2.30%	4.18%	4.53%	1.47%	nm(1)	2.27%

(1) Not meaningful.

For the year ended October 31, 2019 ($ millions)	Canadian Banking	International Banking	Global Wealth Management	Global Banking and Markets	Other	Total
Deposits with financial institutions	$ 177	$ 16,270	$ 975	$ 667	$ 31,491	$ 49,580
Trading assets	–	3,271	14	112,293	1,279	116,857
Securities purchased under resale agreements and securities borrowed	–	2,141	–	118,375	467	120,983
Investment securities including investments in associates	803	17,053	534	4,475	64,658	87,523
Net loans and acceptances	335,833	147,596	12,369	101,779	(3,433)	594,144
Total earning assets	$ 336,813	$ 186,331	$ 13,892	$ 337,589	$ 94,462	$ 969,087
Non-earning assets	3,358	14,265	10,772	34,320	24,261	86,976
Total assets	$ 340,171	$ 200,596	$ 24,664	$ 371,909	$ 118,723	$ 1,056,063
Total earning assets	336,813	186,331	13,892	337,589	94,462	969,087
Less:						
Investments in associates	–	–	–	–	–	–
Trading assets	–	2,981	–	112,033	(2,981)	112,033
Securities purchased under resale agreements and securities borrowed	–	–	–	118,355	–	118,355
Customers' liability under acceptances	11,229	61	1,946	10,108	(7,019)	16,325
Other deductions	–	412	–	15,432	2,727	18,571
Core earning assets	$ 325,584	$ 182,877	$ 11,946	$ 81,661	$ 101,735	$ 703,803
Net interest margin						
Net interest income	7,848	8,353	564	1,396	(984)	17,177
Less: Non-core net interest income	–	42	–	28	(42)	28
Core net interest income	$ 7,848	$ 8,311	$ 564	$ 1,368	$ (942)	$ 17,149
Net interest margin	2.41%	4.54%	4.73%	1.68%	nm(1)	2.44%

(1) Not meaningful.

Return on equity

Return on equity is a profitability measure that presents the net income attributable to common shareholders as a percentage of average common shareholders' equity.

The Bank attributes capital to its business lines on a basis that approximates 10.5% of Basel III common equity capital requirements which includes credit, market and operational risks and leverage inherent within each business segment.

Return on equity for the business segments is calculated as a ratio of net income attributable to common shareholders of the business segment and the capital attributed.

Adjusted return on equity represents adjusted net income attributable to common shareholders as a percentage of adjusted average common shareholders' equity.

Productivity ratio

Management uses the productivity ratio as a measure of the Bank's efficiency. This ratio represents operating expenses as a percentage of total revenue. A lower ratio indicates improved productivity.

Adjusted productivity ratio represents adjusted operating expenses as a percentage of adjusted total revenue.

Operating leverage

This financial metric measures the rate of growth in total revenue less the rate of growth in operating expenses.

Adjusted operating leverage represents the rate of growth in adjusted total revenue less the rate of growth in adjusted operating expenses.

Provision for credit losses as a % of average net loans and acceptances

The ratio represents provision for credit losses (PCL) expressed as a % of average net loans and acceptances.

Adjusted provision for credit losses as a % of average net loans and acceptances represents adjusted PCL expressed as a % of average net loans and acceptances.

Effective tax rate

The effective tax rate is the overall tax rate paid by the Bank on its earned income. The effective tax rate is calculated by dividing the Bank's income tax expenses by the income before taxes.

Adjusted effective tax rate is calculated by dividing adjusted income tax expenses by the adjusted income before taxes.

Taxable equivalent basis

The Bank analyzes its trading-related revenue on a taxable equivalent basis (TEB). This methodology grosses up tax-exempt income earned on certain securities reported in either net interest income or non-interest income to an equivalent before tax basis. Management believes that this basis for measurement provides a uniform comparability of net interest income and non-interest income arising from both taxable and non-taxable sources and facilitates a consistent basis of measurement. While other banks also use TEB, their methodology may not be comparable to the Bank's methodology.

T4 Financial highlights

As at and for the years ended October 31	2021(1)	2020(1)	2019
Operating results ($ millions)			
Net interest income	**16,961**	17,320	17,177
Non-interest income	**14,291**	14,016	13,857
Total revenue	**31,252**	31,336	31,034
Provision for credit losses	**1,808**	6,084	3,027
Non-interest expenses	**16,618**	16,856	16,737
Income tax expense	**2,871**	1,543	2,472
Net income	**9,955**	6,853	8,798
Net income attributable to common shareholders	**9,391**	6,582	8,208
Operating performance			
Basic earnings per share ($)	**7.74**	5.43	6.72
Diluted earnings per share ($)	**7.70**	5.30	6.68
Return on equity (%) (2)	**14.7**	10.4	13.1
Productivity ratio (%) (2)	**53.2**	53.8	53.9
Operating leverage (%) (2)	**1.1**	0.3	(3.3)
Net interest margin (%) (3)	**2.23**	2.27	2.44
Financial position information ($ millions)			
Cash and deposits with financial institutions	**86,323**	76,460	46,720
Trading assets	**146,312**	117,839	127,488
Loans	**636,986**	603,263	592,483
Total assets	**1,184,844**	1,136,466	1,086,161
Deposits	**797,259**	750,838	733,390
Common equity	**64,750**	62,819	63,638
Preferred shares and other equity instruments	**6,052**	5,308	3,884
Assets under administration (2)(4)	**652,924**	556,916	558,408
Assets under management (2)(4)	**345,762**	289,839	301,631
Capital and liquidity measures			
Common Equity Tier 1 (CET1) capital ratio (%) (5)	**12.3**	11.8	11.1
Tier 1 capital ratio (%) (5)	**13.9**	13.3	12.2
Total capital ratio (%) (5)	**15.9**	15.5	14.2
Leverage ratio (%) (6)	**4.8**	4.7	4.2
Risk-weighted assets ($ millions) (5)	**416,105**	417,138	421,185
Liquidity coverage ratio (LCR) (%) (7)	**124**	138	125
Net stable funding ratio (NSFR) (%) (8)	**110**	n/a	n/a
Credit quality			
Net impaired loans ($ millions)	**2,801**	3,096	3,540
Allowance for credit losses ($ millions) (9)	**5,731**	7,820	5,145
Gross impaired loans as a % of loans and acceptances (2)	**0.67**	0.81	0.84
Net impaired loans as a % of loans and acceptances (2)	**0.42**	0.50	0.58
Provision for credit losses as a % of average net loans and acceptances (2)(10)	**0.29**	0.98	0.51
Provision for credit losses on impaired loans as a % of average net loans and acceptances (2)(10)	**0.53**	0.56	0.49
Net write-offs as a % of average net loans and acceptances (2)	**0.54**	0.47	0.50
Adjusted results(3)			
Adjusted net income ($ millions)	**10,169**	6,961	9,409
Adjusted diluted earnings per share ($)	**7.87**	5.36	7.14
Adjusted return on equity (%)	**15.0**	10.4	13.9
Adjusted productivity ratio (%)	**52.2**	53.0	52.7
Adjusted operating leverage (%)	**1.5**	(0.6)	(2.1)
Adjusted provision for credit losses as a % of average net loans and acceptances (10)	**0.29**	0.95	0.49
Common share information			
Closing share price ($) (TSX)	**81.14**	55.35	75.54
Shares outstanding (millions)			
Average – Basic	**1,214**	1,212	1,222
Average – Diluted	**1,225**	1,243	1,251
End of period	**1,215**	1,211	1,216
Dividends paid per share ($)	**3.60**	3.60	3.49
Dividend yield (%) (2)	**5.2**	5.8	4.9
Market capitalization ($ millions) (TSX)	**98,612**	67,055	91,867
Book value per common share ($) (2)	**53.28**	51.85	52.33
Market value to book value multiple (2)	**1.5**	1.1	1.4
Price to earnings multiple (trailing 4 quarters) (2)	**10.5**	10.2	11.2
Other information			
Employees (full-time equivalent) (11)	**89,488**	91,447	101,380
Branches and offices	**2,518**	2,618	3,109

(1) The amounts for the years ended October 31, 2021 and October 31, 2020 have been prepared in accordance with IFRS 16; prior year amounts have not been restated.
(2) Refer to Glossary on page 141 for the description of the measure.
(3) Refer to page 17 for a discussion of Non-GAAP measures.
(4) Prior period amounts have been restated to appropriately reflect certain intercompany items.
(5) This measure has been disclosed in this document in accordance with OSFI Guideline – Capital Adequacy Requirements (November 2018).
(6) This measure has been disclosed in this document in accordance with OSFI Guideline – Leverage Requirements (November 2018).
(7) This measure has been disclosed in this document in accordance with OSFI Guideline – Public Disclosure Requirements for Domestic Systemically Important Banks on Liquidity Coverage Ratio (April 2015).
(8) This measure has been disclosed in this document in accordance with OSFI Guideline – Net Stable Funding Ratio Disclosure Requirements (January 2021).
(9) Includes allowance for credit losses on all financial assets – loans, acceptances, off-balance sheet exposures, debt securities, and deposits with financial institutions.
(10) Includes provision for credit losses on certain financial assets – loans, acceptances, and off-balance sheet exposures.
(11) Prior year amounts have been restated to conform with current period presentation.

OVERVIEW OF PERFORMANCE

Financial Results: 2021 vs 2020

Net income was $9,955 million in 2021, up 45% from $6,853 million in 2020, due primarily to lower provision for credit losses, as a result of a more favourable credit and macroeconomic outlook. Diluted earnings per share (EPS) were $7.70 compared to $5.30. Return on equity was 14.7% compared to 10.4%.

Adjusting items during the current year were $214 million after-tax ($291 million pre-tax) (refer Table T1). The Bank recorded a restructuring charge of $93 million ($126 million pre-tax), substantially related to International Banking for the cost of reducing branches and full-time employees, driven by the accelerated customer adoption of digital channels and process automation. These efficiencies are a result of the Bank's commitment to simplify processes and optimize distribution channels to run businesses more effectively while meeting changing customer needs. The Bank also recorded settlement and litigation provisions in the amount of $46 million ($62 million pre-tax) in connection with the Bank's former metals business. Other adjusting items in the current year included amortization of Acquisition-related intangible assets of $75 million ($103 million pre-tax). The prior year's adjustments were $108 million after-tax ($300 million pre-tax), including net gain on divestitures of $327 million ($298 million pre-tax), valuation-related adjustments of $233 million ($315 million pre-tax), Acquisition-related integration costs of $125 million ($177 million pre-tax) and amortization of Acquisition-related intangible assets of $77 million ($106 million pre-tax).

Adjusted net income was $10,169 million, up 46% from $6,961 million. The increase in net income was due primarily to lower provision for credit losses, as a result of a more favourable credit and macroeconomic outlook. Adjusted diluted EPS were $7.87 compared to $5.36 and adjusted return on equity was 15.0% compared to 10.4%.

Net interest income was $16,961 million, a decrease of $359 million or 2%. The negative impact of foreign currency translation was 3%, which together with lower margin more than offset the increases from strong asset growth in Canadian Banking, and higher contribution from asset/liability management activities. The net interest margin was down four basis points to 2.23%, driven by lower margins in International Banking and Canadian Banking related to changes in business mix and the impact of central bank rate cuts in 2020, partly offset by a higher contribution from asset/liability management activities.

Non-interest income was up $275 million or 2% to $14,291 million. Adjusted non-interest income increased $472 million or 3%. The negative impact of foreign currency translation was 2%. The increase was driven mainly by strong wealth management revenues which benefitted from annual performance fees and higher banking revenues, investment gains, and income from associated corporations. This was partly offset by lower trading revenues, insurance income, and lower realized gains on investment securities.

The provision for credit losses was $1,808 million, compared to $6,084 million last year, a decrease of $4,276 million. Adjusted provision for credit losses decreased $4,121 million or 70% due primarily to lower provision for credit losses on performing loans across all business lines. The provision for credit losses ratio decreased 69 basis points to 29 basis points and adjusted provision for credit losses ratio decreased by 66 basis points.

Non-interest expenses were $16,618 million, a decrease of $238 million or 1%. Adjusted non-interest expenses also decreased 1%. Expenses were positively impacted by foreign currency translation and divested operations, lower COVID-19 related costs, share-based compensation, premises costs, advertising and communication expenses. These were partially offset by higher performance-based compensation, technology-related costs to support business growth, the investment in the SCENE loyalty program, higher professional fees and business and capital taxes. Operating leverage was positive 1.1% on a reported basis and positive 1.5% on an adjusted basis.

The provision for income taxes was $2,871 million compared to $1,543 million last year. The effective tax rate was 22.4% compared to 18.4%. On an adjusted basis, the effective tax rate was 22.5% compared to 19.9% due primarily to significantly higher provision for credit losses in entities that operate in higher tax rate jurisdictions in the prior year and changes in business and earnings mix.

The Basel III Common Equity Tier 1 (CET1) ratio was 12.3% as at October 31, 2021, compared to 11.8% last year.

Medium-term financial objectives

The following table provides a summary of our 2021 performance against our medium-term financial performance objectives:

	2021 Results	
	Reported	Adjusted(1)
Diluted earnings per share growth of 7%+	45.3%	46.8%
Return on equity of 14%+	14.7%	15.0%
Achieve positive operating leverage	Positive 1.1%	Positive 1.5%
Maintain strong capital ratios	CET1 capital ratio of 12.3%	CET1 capital ratio of 12.3%

(1) Refer to Non-GAAP Measures on page 17.

Shareholder Returns

In fiscal 2021, the total shareholder return on the Bank's shares was 53.7%, compared to the total return of the S&P/TSX Composite Index of 38.8%. The total compound annual shareholder return on the Bank's shares over the past five years was 7.4%, and 9.2% over the past 10 years. This is below the total annual return of the S&P/TSX Composite Index over the past five years of 10.6%, but above the total annual return over the past 10 years of 8.8%.

Dividends per share totaled $3.60 for the year, no change from 2020. The dividend payout ratio for the year of 46.5%, was in-line with the Bank's target payout range of 40-50%. On November 4, 2021, OSFI lifted the COVID-19 related capital distribution restrictions allowing financial institutions to increase regular dividends. The Board of Directors approved a quarterly dividend of $1.00 per common share, a 10 cent increase, at its meeting on November 29, 2021. This quarterly dividend applies to shareholders of record at the close of business on January 4, 2022, and is payable January 27, 2022.

C1 Closing common share price as at October 30



T5 Shareholder returns

For the years ended October 31	2021	2020	2019
Closing market price per common share ($)	**81.14**	55.35	75.54
Dividends paid ($ per share)	**3.60**	3.60	3.49
Dividend yield (%)(1)	**5.2**	5.8	4.9
Increase (decrease) in share price (%)	**46.6**	(26.7)	6.9
Total annual shareholder return (%)(1)	**53.7**	(22.3)	12.4

(1) Refer to Glossary on page 141 for the description of the measure.

C2 Return to common shareholders Share price appreciation plus dividends reinvested, 2010=100



Economic Summary and Outlook

A robust global recovery is underway in all our key markets, though the strength of the recovery is causing significant bottlenecks in central supply chains. These bottlenecks are leading to modestly lower growth in key economies, such as the United States and Canada, though fundamentals continue to suggest powerful economic momentum. These supply challenges, combined with the strength of local and global demand, have led to an inflationary surge in a broad range of economies. It is now clear that earlier assumptions that the price increases associated with the supply disruptions would be temporary were overly optimistic, as upward revisions to inflation forecasts now suggest that inflationary dynamics will be more persistent, though still temporary. As a result of these developments, central banks are rapidly recalibrating the stance of monetary policy. In some countries, this involves an end to or a phasing out of quantitative easing programs and, in others, higher policy rates. Markets have already priced in expectations of significantly higher policy rates, with a consequent impact on interest rates all along the yield curve.

In both Canada and the United States, concerns about the economic impact ofCOVID-19 appear to have passed, though risks remain to the outlook as the virus mutates. The key concern now is the strength of demand relative to the economies' ability to import or produce goods. Supply bottlenecks are making it challenging for firms to source inputs and to meet the rapidly rising needs of their clientele. We expect these bottlenecks to fade in the first half of 2022. Fundamentals remain very strong however, as both economies continue to benefit from substantial policy support, very high household wealth, solid corporate and household balance sheets, strong employment growth, and high commodity prices. The strength of demand and the temporary supply challenges are leading to inflation that is well above targets in both countries. As a result, we expect the Bank of Canada will raise interest rates by 100 basis points next year, and the Federal Reserve will respond with a more modest 25 basis point increase at end-2022 given underperformance of the American labour market relative to Canada's.

A broad range of economic data in all Pacific Alliance countries show that the economies have been far more resilient toCOVID-19 flare-ups and political uncertainty than earlier considered. This likely reflects the strength of global demand and elevated commodity prices, both of which are key to the economies' prospects. As a consequence, forecasts for all Pacific Alliance countries have been revised up markedly as the year has progressed. Political uncertainty has led to sizeable moves in some exchange rates, adding to inflationary pressures coming from global supply challenges. In response to these developments, all regional central banks have raised interest rates in recent months, with more increases to come.

Outlook

The Bank expects to deliver solid performance across all our businesses in 2022. Revenue is expected to grow from solid loan growth, modest interest margin expansion and higher non-interest income benefitting from improving economic conditions, offset by the impact of a potentially stronger Canadian dollar and lower investment gains. Provision for credit losses is expected to remain low. The Bank continues to focus on prudent expense management to generate positive operating leverage. Expenses are expected to grow at low single-digit to support business growth and meet upcoming regulatory requirements. The Bank's capital position is expected to remain strong in 2022.

Impact of COVID-19

2021 Update

The COVID-19 virus is a fading risk to the global recovery. With health impacts largely limited to unvaccinated groups, any future waves of the virus should have minor impacts on the economic outlook as governments seem unlikely to reintroduce wide-ranging mobility restrictions in the event additional COVID-19 waves materialize. In addition, most economies are experiencing solid economic recoveries, with healthy household and corporate balance sheet, and strong employment growth. This should provide an additional layer of protection against the potential consequences of new surges in the virus. There remain, nonetheless ongoing but fading impacts from COVID-19 in economies. Unemployment is well above pre-COVID levels in several countries, and the sectors most heavily affected by COVID since its outset continue to operate well below pre-pandemic levels.

2020

On March 11, 2020, the World Health Organization declared the COVID-19 outbreak a global pandemic. In the early days of the pandemic and absent any medical approaches to slow the spread of the virus, governments around the world implemented a number of measures to curtail the outbreak and slow its progression. These included business closures, travel restrictions, quarantines, and limits on public and private gatherings. Uncertainty about the impact of the virus and the ability to control it led to severe stresses in financial markets. To ease strains in funding markets, central banks undertook prompt and large-scale efforts to increase market liquidity. This resulted in sharp cuts in interest rates, quantitative easing programs in some countries, direct lending to businesses, and targeted liquidity injections in various credit product markets. In some countries, regulatory authorities allowed banks to offer deferral programs to customers without requiring them to reclassify affected loans. In addition to these financial measures, fiscal authorities deployed historic amounts of direct support to firms and households including most prominently, wage subsidies for firms and financial assistance to employees affected by the pandemic.

Pandemic response measures

Customer Assistance Programs

To support customers, starting in Q2, 2020 the Bank implemented a number of customer assistance programs across the footprint, including deferral of loan payments.

Canada

As at October 31, 2021, there were no loans in active deferral status. The table below provides a brief description of the nature of these programs and outstanding balances as of October 31, 2020:

Product	As at October 31, 2020		Program Detail
	# of customer accounts (000s)	Amount outstanding ($ millions)	
Residential Mortgages	16	$4,257	Up to six months deferral of total payments
Personal Loans	16	612	Up to six months deferral on minimum requirements for line of credit accounts, and total payments on secured and unsecured term loans including auto
Credit Cards	3	18	Up to four months deferral on minimum payment requirements
Commercial & Small Business Loans	1	232	Up to three months payment deferral

For customer accounts where payment deferrals have expired during the year, approximately 97% are current on payments (October 31, 2020 – 97%).

Government of Canada's COVID-19 Economic Response Plan

The Bank participated in the following plans as part of the Government of Canada's COVID-19 Economic Response Plan:

2020

Canada Emergency Wage Subsidy (CEWS)

The Bank participated in the CEWS by facilitating enrolment in direct deposit where eligible businesses received a subsidy from the Government of Canada of 75% of employee wages for up to 24 weeks, enabling businesses to re-hire workers previously laid off as a result of COVID-19.

Canada Emergency Business Account (CEBA)

Through the CEBA program, the Bank facilitated loans with eligible small business customers and Export Development Canada (EDC). Eligible small business customers received a loan of up to $60,000.

Business Credit Availability Program (BCAP)

The BCAP provided additional liquidity support to small business and commercial customers through EDC and Business Development Bank of Canada (BDC).

- Under the EDC plan, EDC guarantees an 80% portion of new operating loans made to the export sector as well as domestic companies.
- Under the BCAP, BDC entered into a co-lending facility with the Bank in which BDC purchases an 80% participation in term loans made to eligible small business and commercial customers.
- Under the BCAP Mid-Market Financing Program, BDC enters into loan syndications with the Bank and underwrites 90% of junior term loans made to eligible medium-sized businesses.

2021

Highly Affected Sectors Credit Availability Program (HASCAP)

The Highly Affected Sectors Credit Availability Program (HASCAP) was launched on February 1, 2021. Under this program, the Business Development Bank of Canada (BDC) fully guarantees eligible loans made by the Bank to small and medium-sized businesses heavily impacted by the COVID-19 pandemic. As of October 31, 2021, loans issued under this program were $201 million.

For details on the CEBA and BCAP, refer to the off-balance sheet arrangements section on page 74.

International

The table below provides a brief description of the nature of these programs and outstanding balances for accounts that remain in active deferral status as of October 31st:

Product	As at October 31, 2021		As at October 31, 2020		Program Detail
	# of customer accounts (000s)	Amount outstanding ($ millions)	# of customer accounts (000s)	Amount outstanding ($ millions)	
Residential Mortgages	–	9	36	$3,699	Up to six months deferral of total payments
Personal Loans	–	3	152	1,342	Up to six months deferral on minimum payment requirements for line of credit accounts, and total payments on secured and unsecured term loans including auto
Credit Cards	–	3	299	961	Up to six months deferral on minimum payment requirements
Commercial & Small Business Loans	–	–	0.7	4,600	Up to six months payment deferral, increases in short term liquidity lines, and other amendments

For customer accounts where payment deferrals have expired during the year, approximately 92% are current on payments (October 31, 2020 – 90%).

Fiscal and monetary stimulus

At the start of the pandemic, governments implemented a number of monetary and fiscal stimulus measures to deal with the unprecedented situation. Central banks in Canada and across the Bank's footprint enacted reductions in benchmark policy rates in order to stimulate economic activity. In addition, governments launched programs to provide additional funding to financial institutions to support lending in the real economy and promote stability of financial markets. The Bank participated in some of these programs in the prior year to bolster its liquidity position. During the current year, the majority of the liquidity that the Bank received under these programs was repaid.

Impact of Foreign Currency Translation

The impact of foreign currency translation on net income is shown in the table below.

T6 Impact of foreign currency translation

For the fiscal years	2021 Average exchange rate	2021 % Change	2020 Average exchange rate	2020 % Change	2019 Average exchange rate	2019 % Change
U.S. Dollar/Canadian Dollar	**0.795**	**6.9%**	0.744	(1.2)%	0.753	(3.2)%
Mexican Peso/Canadian Dollar	**16.035**	**1.3%**	15.832	8.4%	14.607	(1.3)%
Peruvian Sol/Canadian Dollar	**3.032**	**18.0%**	2.569	2.3%	2.512	(1.0)%
Colombian Peso/Canadian Dollar	**2,929**	**7.6%**	2,722	11.2%	2,447	7.7%
Chilean Peso/Canadian Dollar	**593.123**	**0.2%**	591.712	14.3%	517.805	5.1%

Impact on net income (1) ($ millions except EPS)	2021 vs. 2020	2020 vs. 2019	2019 vs. 2018
Net interest income	**$ (512)**	$ (481)	$ (52)
Non-interest income(2)	**(276)**	(196)	30
Non-interest expenses	**408**	397	60
Other items (net of tax)	**203**	261	22
Net income	**$ (177)**	$ (19)	$ 60
Earnings per share (diluted)	**$ (0.14)**	$ (0.02)	$ 0.05
Impact by business line ($ millions)			
Canadian Banking	**$ (6)**	$ 2	$ 7
International Banking(2)	**(130)**	(23)	51
Global Wealth Management	**(15)**	(9)	–
Global Banking and Markets	**(79)**	11	28
Other(2)	**53**	–	(26)
	$ (177)	$ (19)	$ 60

(1) Includes impact of all currencies.
(2) Includes the impact of foreign currency hedges.

Impact of Divested Operations

The table below reflects the income earned in each period from divested operations prior to the closing. Refer to Note 37 in the accompanying financial statements for the list of divested operations that have closed.

T7 Impact of divested operations

($ millions)	2021	2020	2019
Net interest income	**$ 23**	$ 123	$ 486
Non-interest income	**13**	95	875
Total revenue	**36**	218	1,361
Provision for credit losses	**9**	27	21
Non-interest expenses	**16**	96	438
Income before taxes	**11**	95	902
Income tax expense	**4**	25	223
Net income	**$ 7**	$ 70	$ 679
Net income attributable to non-controlling interests (NCI)	**–**	–	7
Net income attributable to equity holders – relating to divested operations	**$ 7**	$ 70	$ 672

($ millions except EPS)	2021 vs. 2020	2020 vs. 2019
Net interest income	**$ (100)**	$ (363)
Non-interest income	**(82)**	(780)
Total revenue	**(182)**	(1,143)
Provision for credit losses	**(18)**	6
Non-interest expenses	**(80)**	(342)
Income before taxes	**(84)**	(807)
Income tax expense	**(21)**	(198)
Net income	**$ (63)**	$ (609)
Net income attributable to equity holders of the Bank	**(63)**	(602)
Earnings per share (diluted)	**$ (0.05)**	$ (0.48)

GROUP FINANCIAL PERFORMANCE

Net Income

Net income was $9,955 million in 2021, up 45% from $6,853 million in 2020 due primarily to lower provision for credit losses, as a result of a more favourable credit and macroeconomic outlook.

Adjusting items during the current year were restructuring and other provisions of $139 million, as well as amortization of acquisition-related intangible assets of $75 million (October 31, 2020 – $77 million). The prior year also included net gain on divestitures of $327 million, as well as valuation-related adjustments of $233 million. Refer Non-GAAP Measures for further details.

Adjusted net income was $10,169 million, up 46% from $6,961 million due primarily to lower provision for credit losses.

Net Interest Income

Net interest income was $16,961 million, a decrease of $359 million or 2%. The negative impact of foreign currency translation of 3%, together with lower margins and the impact of divested operations, more than offset positive increases from strong asset growth in Canadian Banking and higher contribution from asset/liability management activities.

Net interest income increased $192 million or 2% in Canadian Banking, due primarily to strong loan and deposit growth, partially offset by lower margins from changes in business mix and Bank of Canada interest rate cuts in 2020. International Banking net interest income decreased $978 million or 13%, including a 6% negative impact from foreign currency translation, as well as lower margins and lower personal lending, impacted by macroeconomic conditions. Net interest income increased $53 million or 9% in Global Wealth Management from growth in deposits and Private Banking loans. Global Banking and Markets net interest income was in line with the previous year as lower loans and the negative impact of foreign currency translation, were offset by higher lending margins. The Other operating segment net interest income increased $373 million mainly from the higher contribution from asset/liability management activities.

Core earning assets decreased $5 billion or 1% to $752 billion. Growth in residential mortgages and commercial loans in Canadian Banking, and higher loans in Global Wealth Management were more than offset by the negative impact of foreign currency translation of 3%, as well as lower corporate loans in Global Banking and Markets.

The net interest margin was down four basis points to 2.23%, driven by lower margins in International Banking and Canadian Banking related to changes in business mix and the impact of central bank rate cuts in 2020, partially offset by a higher contribution from asset/liability management activities.

T8 Net interest income and net interest margin(1)(2)

	2021			2020			2019		
($ billions, except percentage amounts)	**Average balance**	**Interest**	**Average rate**	Average balance	Interest	Average rate	Average balance	Interest	Average rate
Total average assets and net interest income	**$ 1,157.2**	**$ 17.0**		$ 1,160.6	$ 17.3		$ 1,056.1	$ 17.2	
Less: trading related businesses(1)	**322.8**	**0.2**		321.5	0.1		279.5	0.1	
Banking margin on average total assets	**$ 834.4**	**$ 16.8**	**2.01%**	$ 839.1	$ 17.2	2.05%	$ 776.6	$ 17.1	2.21%
Less: non-earning assets and customers' liability under acceptances	**82.7**	**–**		82.1	–		72.8	–	
Core earning assets and net interest margin	**$ 751.7**	**$ 16.8**	**2.23%**	$ 757.0	$ 17.2	2.27%	$ 703.8	$ 17.1	2.44%

(1) Most net interest income from trading assets is recorded in trading revenues in non-interest income.
(2) Refer to non-GAAP measures on page 17.

T9 Average balance sheet(1) and net interest income

For the fiscal years ($ billions)	2021 Average balance	2021 Interest	2021 Average rate	2020 Average balance	2020 Interest	2020 Average rate	2019 Average balance	2019 Interest	2019 Average rate
Assets									
Deposits with financial institutions	**$ 75.6**	**$ 0.2**	**0.24%**	$ 66.0	$ 0.4	0.63%	$ 49.6	$ 0.9	1.87%
Trading assets	**142.9**	**0.3**	**0.22%**	128.1	0.4	0.36%	116.9	0.3	0.25%
Securities purchased under resale agreements and securities borrowed	**119.8**	**0.2**	**0.15%**	128.3	0.3	0.22%	121.0	0.5	0.41%
Investment securities	**92.2**	**1.1**	**1.25%**	105.0	1.6	1.50%	87.5	2.0	2.22%
Loans:									
Residential mortgages	**299.7**	**9.3**	**3.09%**	273.4	9.2	3.36%	261.5	9.4	3.59%
Personal loans	**92.0**	**5.1**	**5.56%**	96.2	6.1	6.35%	97.7	6.8	6.98%
Credit cards	**13.3**	**2.3**	**17.11%**	16.4	3.2	19.31%	17.5	3.3	18.76%
Business and government	**217.2**	**6.5**	**3.00%**	229.7	8.5	3.71%	206.3	9.6	4.66%
Allowance for credit losses	**(6.8)**			(6.1)			(5.2)		
Total loans	**$ 615.4**	**$ 23.2**	**3.76%**	$ 609.6	$ 27.0	4.43%	$ 577.8	$ 29.1	5.04%
Customers' liability under acceptances	**16.4**			16.1			16.3		
Total earning assets(2)	**$1,062.3**	**$ 25.0**	**2.35%**	$1,053.1	$ 29.7	2.82%	$ 969.1	$ 32.8	3.38%
Other assets	**94.9**			107.5			87.0		
Total assets	**$1,157.2**	**$ 25.0**	**2.16%**	$1,160.6	$ 29.7	2.56%	$ 1,056.1	$ 32.8	3.10%
Liabilities and equity									
Deposits:									
Personal	**$ 245.4**	**$ 2.0**	**0.81%**	$ 231.4	$ 3.2	1.39%	$ 221.0	$ 3.8	1.70%
Business and government	**489.7**	**4.2**	**0.85%**	487.3	6.9	1.42%	448.3	9.1	2.03%
Financial institutions	**44.4**	**0.3**	**0.72%**	47.5	0.6	1.25%	40.2	1.0	2.56%
Total deposits	**$ 779.5**	**$ 6.5**	**0.83%**	$ 766.2	$ 10.7	1.40%	$ 709.5	$ 13.9	1.95%
Obligations related to securities sold under repurchase agreements and securities lent	**116.5**	**0.1**	**0.12%**	134.8	0.2	0.17%	114.6	0.3	0.29%
Subordinated debentures	**6.6**	**0.2**	**2.74%**	7.3	0.2	3.28%	7.5	0.3	3.91%
Other interest-bearing liabilities	**78.3**	**1.2**	**1.58%**	69.5	1.3	1.71%	63.9	1.1	1.74%
Total interest-bearing liabilities	**$ 980.9**	**$ 8.0**	**0.82%**	$ 977.8	$ 12.4	1.27%	$ 895.5	$ 15.6	1.74%
Financial instruments designated at fair value through profit or loss	**21.1**			16.9			11.3		
Other liabilities including acceptances	**83.3**			95.6			79.8		
Equity(3)	**71.9**			70.3			69.5		
Total liabilities and equity	**$1,157.2**	**$ 8.0**	**0.69%**	$1,160.6	$ 12.4	1.07%	$ 1,056.1	$ 15.6	1.48%
Net interest income		**$ 17.0**			$ 17.3			$ 17.2	

(1) Average of daily balances.
(2) Prior year amounts have been restated to include the Customers' liability under acceptances.
(3) Includes non-controlling interest of $2.3 (2020 – $2.5; 2019 – $2.7).

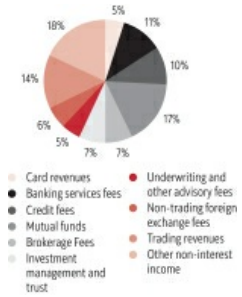
Non-Interest Income

T10 Non-interest income

For the fiscal years ($ millions)	2021	2020	2019	2021 versus 2020
Banking				
Card revenues	$ 749	$ 789	$ 977	(5)%
Banking services fees	1,598	1,540	1,812	4
Credit fees	1,485	1,348	1,316	10
Total banking revenues	$ 3,832	$ 3,677	$ 4,105	4%
Wealth management				
Mutual funds	$ 2,394	$ 1,945	$ 1,849	23%
Brokerage fees	1,039	902	876	15
Investment management and trust				
Investment management and custody	792	749	848	6
Personal and corporate trust	202	197	202	3
	994	946	1,050	5
Total wealth management revenues	$ 4,427	$ 3,793	$ 3,775	17%
Underwriting and other advisory	724	690	497	5
Non-trading foreign exchange	787	708	667	11
Trading revenues	2,033	2,411	1,488	(16)
Net gain on sale of investment securities	419	607	351	(31)
Net income from investments in associated corporations	339	242	650	40
Insurance underwriting income, net of claims	398	497	676	(20)
Other fees and commissions	677	688	949	(2)
Other	655	703	699	(7)
Total non-interest income	$ 14,291	$ 14,016	$ 13,857	2%
Non-GAAP Adjusting items(1)				
Derivatives valuation adjustment(2)	–	116	–	
Net (gain)/loss on divestitures(3)	–	(313)	127	
Adjusted non-interest income	$ 14,291	$ 13,819	$ 13,984	3%

(1) Refer to page 17 for a discussion of Non-GAAP measures.
(2) Recorded in Trading Revenues.
(3) Recorded in Other Non-interest Income.

C3 Sources of non-interest income



Non-interest income was up $275 million or 2% to $14,291 million. Adjusted non-interest income increased $472 million or 3%. The negative impact of foreign currency translation was 2%. The increase was driven mainly by strong wealth management revenues which benefitted from annual performance fees, higher banking revenues as well as higher investment gains in associated corporations and other income. This was partially offset by lower trading revenues, insurance income, and lower realized gains on investment securities.

Banking revenues were up $155 million or 4% to $3,832 million. The increase was due mainly to higher credit fees, partly offset by lower card revenues.

Wealth management revenues increased $634 million or 17% driven primarily by higher mutual fund revenues which included elevated annual performance fees, and higher brokerage fees.

Trading revenues were down $378 million or 16%. On an adjusted basis, the decline was $494 million mainly from lower revenues in fixed income as the prior year benefitted from higher market volatility. This was partially offset by higher revenues in global equities.

Net income from investments in associated corporations was up $97 million or 40%, due primarily to higher investment gains in the underlying businesses.

Insurance underwriting income decreased $99 million or 20%, primarily from increased COVID-19 related claims and lower premiums.

Other income declined by $48 million. On an adjusted basis, other income increased by $264 million due to higher investment gains.

T11 Trading revenues(1)

For the fiscal years ($ millions)	2021	2020	2019
Trading-related revenue (TEB)(2)			
Net interest income	**$ 136**	$ 112	$ 67
Non-interest income			
Trading revenues	**2,321**	2,671	1,652
Other fees and commissions	**185**	205	379
Total trading-related revenue (TEB)	**$ 2,642**	$ 2,988	$ 2,098
Trading-related revenue (TEB)			
Interest rate and credit	**$ 941**	$ 1,552	$ 644
Equities	**932**	631	696
Foreign exchange	**583**	396	273
Commodities	**66**	263	216
Other(3)	**120**	146	269
Total trading-related revenue (TEB)	**$ 2,642**	$ 2,988	$ 2,098
Taxable equivalent adjustment	**(288)**	(260)	(164)
Trading-related revenue (Non-TEB)	**$ 2,354**	$ 2,728	$ 1,934

(1) Refer to Non-GAAP Measures on page 17.
(2) Trading-related revenue consists of net interest income and non-interest income. Included are unrealized gains and losses on security positions held, realized gains and losses from the purchase and sale of securities, fees and commissions from securities borrowing and lending activities, and gains and losses on trading derivatives. Underwriting and other advisory fees, which are shown separately in the Consolidated Statement of Income, are excluded.
(3) Includes the impact of economic hedges.

Provision for Credit Losses

The provision for credit losses was $1,808 million, compared to $6,084 million, a decrease of $4,276 million from last year. Adjusted provision for credit losses decreased $4,121 million or 70% due primarily to lower provision for credit losses on performing loans across all business lines.

Provision for credit losses on performing loans was a net reversal of $1,498 million, a decrease of $4,114 million. Adjusted provision for credit losses on performing loans decreased $3,992 million of which $2,930 million related to retail and $1,062 million to commercial and corporate banking. Approximately $700 million (October 31, 2020 – nil) of the provision reversals was due to reduction of allowances built in the prior year, reflecting the improvement in credit quality and more favourable macroeconomic outlook. The remaining reversal of $798 million was due to credit migration, the majority of which was to impaired loans in the retail portfolio, mainly in International Banking.

The provision for credit losses on impaired loans was $3,306 million, a decrease of $162 million from last year. Adjusted provision for credit losses on impaired loans decreased $129 million or 4%, due to lower provisions in the Canadian Banking and Global Banking and Market portfolios, driven by lower formations, partially offset by higher retail provisions in International Banking driven by credit migration. The provision for credit losses ratio on impaired loans decreased three basis points to 53 basis points and adjusted provision for credit losses ratio on impaired loans decreased by two basis points.

The provision for credit losses ratio decreased 69 basis points to 29 basis points and adjusted provision for credit losses ratio decreased by 66 basis points.

T12 Provision for credit losses by business line

	2021			2020		
For the fiscal years ($ millions)	Performing (Stage 1 and 2)	Impaired (Stage 3)	Total	Performing (Stage 1 and 2)	Impaired (Stage 3)	Total
Canadian Banking						
Retail	**$ (166)**	**$ 578**	**$ 412**	$ 660	$ 927	$ 1,587
Commercial	**(191)**	**112**	**(79)**	283	203	486
Total	**(357)**	**690**	**333**	943	1,130	2,073
International Banking						
Retail	**(952)**	**2,329**	**1,377**	1,247	1,882	3,129
Commercial	**(54)**	**250**	**196**	166	319	485
Total	**(1,006)**	**2,579**	**1,573**	1,413	2,201	3,614
Global Wealth Management	**–**	**2**	**2**	5	3	8
Global Banking and Markets	**(135)**	**35**	**(100)**	257	133	390
Other	**1**	**–**	**1**	(1)	1	–
Provision for credit losses on loans, acceptances and off-balance sheet exposures	**$ (1,497)**	**$ 3,306**	**$ 1,809**	$ 2,617	$ 3,468	$ 6,085
International Banking	**$ 1**	**$ –**	**$ 1**	$ (1)	$ –	$ (1)
Global Wealth Management	**$ –**	**$ –**	**$ –**	$ (1)	$ –	$ (1)
Global Banking and Markets	**$ –**	**$ –**	**$ –**	$ –	$ –	$ –
Other	**(2)**	**–**	**(2)**	1	–	1
Provision for credit losses on debt securities and deposits with banks	**$ (1)**	**$ –**	**$ (1)**	$ (1)	$ –	$ (1)
Total provision for credit losses	**$ (1,498)**	**$ 3,306**	**$ 1,808**	$ 2,616	$ 3,468	$ 6,084
Non-GAAP Adjusting items(1)	**–**	**–**	**–**	(122)	(33)	(155)
Adjusted provision for credit losses(1)	**$ (1,498)**	**$ 3,306**	**$ 1,808**	$ 2,494	$ 3,435	$ 5,929

(1) Refer to page 17 for a discussion of Non-GAAP measures.

T12A Provision for credit losses against impaired financial instruments by business line

For the fiscal years ($ millions)	2021	2020	2019(1)
Canadian Banking			
Retail	**$ 578**	$ 927	$ 890
Commercial	**112**	203	84
	$ 690	$ 1,130	$ 974
International Banking			
Caribbean and Central America	**$ 324**	$ 319	$ 292
Latin America			
Mexico	**449**	400	291
Peru	**1,059**	484	446
Chile	**181**	582	403
Colombia	**522**	322	422
Other Latin America	**44**	94	68
Total Latin America	**2,255**	1,882	1,630
	$ 2,579	$ 2,201	$ 1,922
Global Wealth Management	**$ 2**	$ 3	$ (1)
Global Banking and Markets			
Canada	**$ 16**	$ 67	$ 11
U.S.	**2**	6	(1)
Asia and Europe	**17**	61	(6)
	$ 35	$ 134	$ 4
Total	**$ 3,306**	$ 3,468	$ 2,899
Non-GAAP Adjusting items(2)	**–**	(33)	–
Adjusted total	**$ 3,306**	$ 3,435	$ 2,899

(1) Amounts for 2019 have been restated to reflect the impact of the establishment of Global Wealth Management as a separate business segment.
(2) Refer to page 17 for a discussion of Non-GAAP measures.

T13 Provision for credit losses as a percentage of average net loans and acceptances (1)(2)(3)

For the fiscal years (%)	2021	2020	2019(4)
Canadian Banking			
Retail	**0.13%**	0.54%	0.32%
Commercial	**(0.13)**	0.84	0.15
	0.09	0.59	0.29
International Banking			
Retail	**2.25**	4.74	2.57
Commercial	**0.26**	0.59	0.28
	1.15	2.45	1.40
Global Wealth Management	**0.01**	0.05	0.00
Global Banking and Markets	**(0.10)**	0.35	(0.02)
Provisions against impaired loans	**0.53**	0.56	0.49
Provisions against performing loans	**(0.24)**	0.42	0.02
Provision for credit losses as a percentage of average net loans and acceptances	**0.29%**	0.98%	0.51%
Adjusted provision for credit losses as a percentage of average net loans and acceptances (5)	**0.29%**	0.95%	0.49%

(1) Includes provision for credit losses on certain financial assets – loans, acceptances, andoff-balance sheet exposures.
(2) 2019 includes Day 1 acquisition-related impact in International Banking.
(3) Refer to Glossary on page 141 for the description of the measure.
(4) Amounts for 2019 have been restated to reflect the impact of the establishment of Global Wealth Management as a separate business segment.
(5) Refer to page 17 for a discussion of Non-GAAP measures.

T14 Net write-offs(1) as a percentage of average loans and acceptances (2)

For the fiscal years (%)	2021	2020	2019(3)
Canadian Banking			
Retail	**0.19%**	0.29%	0.32%
Commercial	**0.19**	0.26	0.15
	0.19	0.29	0.29
International Banking			
Retail	**3.89**	2.38	2.50
Commercial	**0.28**	0.31	0.15
	1.89	1.24	1.29
Global Wealth Management	**0.01**	–	0.02
Global Banking and Markets	**0.05**	0.09	0.03
Total	**0.54%**	0.47%	0.50%

(1) Write-offs net of recoveries.
(2) Refer to Glossary on page 141 for the description of the measure.
(3) Amounts for 2019 have been restated to reflect the impact of the establishment of Global Wealth Management as a separate business segment.

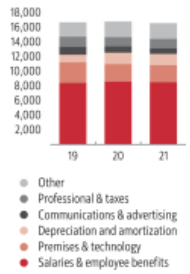
Non-Interest Expenses

T15 Non-interest expenses and productivity

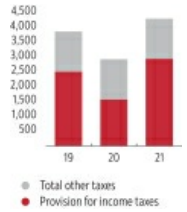
For the fiscal years ($ millions)	2021	2020	2019	2021 versus 2020
Salaries and employee benefits				
Salaries	**$ 4,694**	$ 5,028	$ 4,939	**(7)%**
Performance-based compensation	**2,086**	1,738	1,761	**20**
Share-based payments	**223**	298	278	**(25)**
Other employee benefits	**1,538**	1,560	1,465	**(1)**
	$ 8,541	$ 8,624	$ 8,443	**(1)%**
Premises and technology				
Premises				
Occupancy	**1**	25	527	**(96)**
Property taxes	**97**	98	95	**(1)**
Other premises costs	**415**	483	458	**(14)**
	$ 513	$ 606	$ 1,080	**(15)%**
Technology	**$ 1,838**	$ 1,802	$ 1,727	**2%**
	$ 2,351	$ 2,408	$ 2,807	**(2)%**
Depreciation and amortization				
Depreciation	**769**	797	402	**(4)**
Amortization of intangible assets	**742**	749	651	**(1)**
	$ 1,511	$ 1,546	$ 1,053	**(2)%**
Communications	**$ 369**	$ 418	$ 459	**(12)%**
Advertising and business development	**$ 404**	$ 445	$ 625	**(9)%**
Professional	**$ 789**	$ 753	$ 861	**5%**
Business and capital taxes				
Business taxes	**461**	469	471	**(2)**
Capital taxes	**50**	48	44	**4**
	$ 511	$ 517	$ 515	**(1)%**
Other	**$ 2,142**	$ 2,145	$ 1,974	**(0)%**
Total non-interest expenses	**$ 16,618**	$ 16,856	$ 16,737	**(1)%**
Non-GAAP adjusting items(1)				
Amortization of acquisition-related intangible assets, excluding software(2)	**(103)**	(106)	(116)	
Acquisition-related integration costs(3)	**–**	(177)	(178)	
Restructuring and other provisions(4)	**(188)**	–	–	
Net (gain)/loss on divestitures(5)	**–**	(15)	(21)	
Impairment charge on software assets (2)	**–**	(44)	–	
Adjusted non-interest expenses	**$ 16,327**	$ 16,514	$ 16,422	**(1)%**
Productivity ratio(6)	**53.2%**	53.8%	53.9%	
Adjusted productivity ratio(1)	**52.2%**	53.0%	52.7%	

(1) Refer to page 17 for a discussion of Non-GAAP measures.
(2) Recorded in Depreciation and Amortization.
(3) Recorded in the following categories in 2020 and 2019: Salaries and Benefits (2020: $85; 2019: $83), Premises and Technology (2020: $37; 2019: $37), Depreciation and Amortization (2020: $10; 2019: $12), Communications (2020: $6; 2019: $1), Advertising and Business Development (2020: $3; 2019: $6), Professional (2020: $8; 2019: $17), Business and Capital Taxes (2020: $5; 2019: $2), Other Operating Expenses (2020: $23; 2019: $21).
(4) Recorded in Other Operating Expenses.
(5) Recorded in the following categories in 2020 and 2019: Salaries and Benefits (2020: $11; 2019: $7), Premises and Technology (2020: $0; 2019: $3), Advertising and Business Development (2020: $0; 2019: $2), Professional (2020: $0; 2019: $3), Business and Capital Taxes (2020: $0; 2019: $3), Other Operating Expenses (2020: $4; 2019: $3).
(6) Refer to Glossary on page 141 for the description of the measure.

C4 Non-interest expenses $ millions



C5 Direct and indirect taxes $ millions



Non-interest expenses were $16,618 million, a decrease of $238 million or 1%. Adjusted non-interest expenses also decreased 1%. Expenses were positively impacted by foreign currency translation and divested operations, lower COVID-19 related costs, share-based compensation, premises costs, advertising and communication expenses and the prior year's metals business charges. These were partly offset by higher performance-based compensation, technology-related costs to support business growth, the investment in the SCENE loyalty program, higher professional fees and business and capital taxes.

The Bank's total technology cost, consisting of Technology expenses in Table T15 as well as those included within Salaries, Professional, and Amortization of Intangible Assets and Depreciation, was approximately $3.8 billion, an increase of 3% compared to 2020 and represented 12% of revenues, consistent with 2020. This reflects our continued investment in modernization, growth and technology initiatives, and cybersecurity.

The productivity ratio was 53.2% compared to 53.8%. On an adjusted basis, the productivity ratio was 52.2% compared to 53.0%. Operating leverage was positive 1.1% on a reported basis and positive 1.5% on an adjusted basis.

Provision for Income Taxes

The provision for income taxes was $2,871 million compared to $1,543 million last year. The effective tax rate was 22.4% compared to 18.4%. On an adjusted basis, the effective tax rate was 22.5% compared to 19.9% due primarily to significantly higher provision for credit losses in entities that operate in higher tax rate jurisdictions in the prior year, and changes in business and earnings mix.

Financial Results Review: 2020 vs. 2019

In order to identify key business trends between 2020 and 2019, commentary and the related financial results are below.

Net income

Net income was $6,853 million in 2020, down 22% from $8,798 million in 2019. Diluted earnings per share (EPS) were $5.30 compared to $6.68. Return on equity was 10.4% compared to 13.1%.

Adjusted net income was $6,961 million, down 26% from $9,409 million. This decrease was due mainly to the higher provision for credit losses on performing loans resulting from the impact of COVID-19 market and economic conditions. Adjusted Diluted EPS were $5.36 compared to $7.14 and adjusted Return on equity was 10.4% compared to 13.9%. Refer to non-GAAP measures on page 17.

Net interest income

Net interest income was $17,320 million, an increase of $143 million or 1%. The negative impact of divested operations of approximately 2% was more than offset by business growth of 3%, driven primarily by increases in earning assets and higher contribution from asset/liability management activities, partly offset by the impact of foreign currency translation. The net interest margin was down 17 basis points to 2.27% from lower margins across all business lines due to impact of central bank rate cuts and changes in business mix, as well as an increased mix of lower-margin high quality liquid assets related to higher liquidity levels.

Non-interest income

Non-interest income was $14,016 million, up $159 million or 1%. Adjusted non-interest income was $13,819 million, a decrease of $165 million or 1%. The impact of divested operations was approximately 6%, offset by business growth of 5%. This growth was driven by higher trading revenues, underwriting and advisory fees, investment gains, and wealth management fees. These were partly offset by lower banking revenues, insurance income, other fees and commissions, and the negative impact of foreign currency translation.

Provision for credit losses

The provision for credit losses was $6,084 million, compared to $3,027 million in 2019, an increase of $3,057 million. Adjusted provision for credit losses was $5,929 million, compared to $2,876 million, an increase of $3,053 million or 106% due primarily to higher provision on performing loans across all business lines. The provision for credit losses ratio was 98 basis points, up 47 basis points from 51 basis points in 2019. Adjusted provision for credit losses ratio was 95 basis points, 46 basis points above 2019.

Non-interest expenses

Non-interest expenses were $16,856 million, an increase of $119 million or 1%. Adjusted non-interest expenses were $16,514 million, an increase of 1%. Higher salaries and benefits related to regulatory and technology initiatives, charges related to the metals investigations, COVID-19 related costs and other business growth-related expenses were mostly offset by lower advertising and business development expenses, professional fees, the positive impact of foreign currency translation and divested operations. Operating leverage was positive 0.3% on a reported basis and negative 0.6% on an adjusted basis.

Income taxes

The provision for income taxes was $1,543 million, a decrease of $929 million. The effective tax rate was 18.4% compared to 21.9%, due primarily to significantly higher provision for credit losses recorded in entities that operate in higher tax rate jurisdictions and changes in earnings mix across businesses and jurisdictions.

Fourth Quarter Review

T16 Fourth quarter financial results

($ millions)	For the three months ended October 31 2021	July 31 2021	October 31 2020
Reported Results			
Net interest income	**$ 4,217**	$ 4,217	$ 4,258
Non-interest income	**3,470**	3,540	3,247
Total revenue	**7,687**	7,757	7,505
Provision for credit losses	**168**	380	1,131
Non-interest expenses	**4,271**	4,097	4,057
Income tax expense	**689**	738	418
Net income	**$ 2,559**	$ 2,542	$ 1,899
Net income attributable to non-controlling interests in subsidiaries (NCI)	**70**	81	72
Net income attributable to equity holders of the Bank	**$ 2,489**	$ 2,461	$ 1,827
Preferred shareholders and other equity instrument holders	**78**	35	82
Common shareholders	**$ 2,411**	$ 2,426	$ 1,745
Adjustments(1)			
Amortization of Acquisition-related intangible assets, excluding software (2)	**$ 25**	$ 24	$ 26
Restructuring and other provisions(2)	**188**	–	–
Acquisition-related integration costs(2)	**–**	–	20
Net (gain)/ loss on divestitures (3)	**–**	–	8
Adjustments (Pre-tax)	**213**	24	54
Income tax expense/(benefit)	**(56)**	(6)	(15)
Adjustments (After tax)	**157**	18	39
Adjustments attributable to NCI	**(10)**	–	–
Adjustments (After tax and NCI)	**$ 147**	$ 18	$ 39
Adjusted Results			
Net interest income	**$ 4,217**	$ 4,217	$ 4,258
Non-interest income	**3,470**	3,540	3,247
Total revenue	**7,687**	7,757	7,505
Provision for credit losses	**168**	380	1,131
Non-interest expenses	**4,058**	4,073	4,003
Income tax expense	**745**	744	433
Net income	**$ 2,716**	$ 2,560	$ 1,938
Net income attributable to non-controlling interests in subsidiaries (NCI)	**80**	81	72
Net income attributable to equity holders of the Bank	**$ 2,636**	$ 2,479	$ 1,866
Preferred shareholders and other equity instrument holders	**78**	35	82
Common shareholders	**$ 2,558**	$ 2,444	$ 1,784

(1) Refer to Non-GAAP Measures on page 17.
(2) Recorded in non-interest expenses.
(3) (Gain)/loss on divestitures is recorded in non-interest income; costs related to divestitures are recorded in non-interest expenses.

Net income

Q4 2021 vs Q4 2020

Net income was $2,559 million compared to $1,899 million. Adjusted net income was $2,716 million compared to $1,938 million, up 40%, due mainly to lower provision for credit losses as a result of a more favourable credit and macroeconomic outlook.

Q4 2021 vs Q3 2021

Net income was $2,559 million compared to $2,542 million. Adjusted net income was $2,716 million compared to $2,560 million, up 6%, due mainly to lower provision for credit losses, partially offset by lower revenues.

Total revenue

Q4 2021 vs Q4 2020

Revenues were $7,687 million, an increase of $182 million or 2%, due mainly to higher non-interest income, partially offset by lower net interest income.

Q4 2021 vs Q3 2021

Revenues were $7,687 million, a decrease of $70 million or 1%, due mainly to lower non-interest income.

Net interest income

Q4 2021 vs Q4 2020

Net interest income was $4,217 million, a decrease of $41 million or 1%. Strong mortgage and commercial loan growth was more than offset by the 3% negative impact of foreign currency translation, lower corporate and unsecured lending balances, and margin compression.

The net interest margin was down five basis points to 2.17%, driven primarily by lower margins in International and Canadian Banking related to changes in business mix and the impact of central bank rate cuts in 2020, partly offset by decreased levels of high quality, lower-margin liquid assets.

Q4 2021 vs Q3 2021

Net interest income was in line with the prior quarter. Loan growth across all business lines was offset by lower margins and the negative impact of foreign currency translation.

The net interest margin of 2.17% was down six basis points due primarily to a lower contribution from asset/liability management activities, as well as lower margins driven by changes in business mix.

Non-interest income

Q4 2021 vs Q4 2020

Non-interest income was $3,470 million, up $223 million or 7%. This was due mainly to higher banking and wealth management revenues, income from associated corporations, and higher investment gains. These were partly offset by lower fixed income trading revenues.

Q4 2021 vs Q3 2021

Non-interest income was down $70 million or 2%. This was due mainly to lower trading revenues and underwriting and advisory fees, which were partially offset by higher income from associated corporations, wealth management revenues, and insurance income.

Provision for credit losses

Q4 2021 vs Q4 2020

The provision for credit losses was $168 million, compared to $1,131 million, a decrease of $963 million or 85%. The provision for credit losses ratio decreased 63 basis points to 10 basis points.

The provision for credit losses on performing loans was a net reversal of $343 million, a decrease of $639 million. Retail provisions decreased by $364 million, while commercial and corporate loan provisions decreased by $275 million across all business lines. These decreases were driven by the more favourable credit and macroeconomic outlook.

The provision for credit losses on impaired loans was $511 million, compared to $835 million, a decrease of $324 million or 39%, due primarily to lower retail provisions driven by lower credit migration across markets. Commercial and corporate loan provisions decreased $96 million across all business lines driven by lower formations. The provision for credit losses ratio on impaired loans was 31 basis points, a decrease of 23 basis points.

Q4 2021 vs Q3 2021

The provision for credit losses was $168 million, compared to $380 million, a decrease of $212 million. The provision for credit losses ratio decreased 14 basis points to 10 basis points.

The provision for credit losses on performing loans was a net reversal of $343 million, compared to a net reversal of $461 million last quarter. Approximately $320 million of the provision reversals this quarter was due to reduction of allowances built in the prior year, reflecting the improvement in credit quality and more favourable macroeconomic outlook. The remaining reversal of $23 million was due to credit migration, the majority of which was to impaired loans in the retail portfolio, mainly in International Banking.

The provision for credit losses on impaired loans was $511 million, compared to $841 million, a decrease of $330 million or 39%, due primarily to lower retail provisions, mainly in International Banking, driven by lower credit migration. The provision for credit losses ratio on impaired loans was 31 basis points, a decrease of 22 basis points.

Non-interest expenses

Q4 2021 vs Q4 2020

Non-interest expenses were $4,271 million, up $214 million or 5% including $188 million related to restructuring and other provisions. Adjusted non-interest expenses of $4,058 million increased 1%. The increase was due to higher performance-based compensation, professional fees, advertising and technology-related costs to support business growth. Partly offsetting were the positive impact of foreign currency translation, lower personnel and premises costs.

The productivity ratio was 55.6% compared to 54.1%. On an adjusted basis, the productivity ratio was 52.8% compared to 53.3%.

Q4 2021 vs Q3 2021

Non-interest expenses were up $174 million or 4% including $188 million related to restructuring and other provisions. Adjusted non-interest expenses were in line with prior quarter. Lower performance-based compensation and other employee benefits expenses were offset by increases in advertising and business development, professional fees and share-based compensation expenses.

The productivity ratio was 55.6% compared to 52.8%. On an adjusted basis, the productivity ratio was 52.8% compared to 52.5%.

Provision for income taxes

Q4 2021 vs Q4 2020

The effective tax rate was 21.2% compared to 18.0% in the same quarter last year. On an adjusted basis, the effective tax rate was 21.5% compared to 18.2% due primarily to changes in business and earnings mix across jurisdictions.

Q4 2021 vs Q3 2021

The effective tax rate was 21.2% compared to 22.5% in the previous quarter. On an adjusted basis, the effective tax rate was 21.5% compared to 22.5% in the previous quarter due primarily to changes in business and earnings mix across jurisdictions.

Trending Analysis

T17 Quarterly financial highlights

($ millions)	For the three months ended							
	October 31 2021	July 31 2021	April 30 2021	January 31 2021	October 31 2020	July 31 2020	April 30 2020	January 31 2020
Reported results								
Net interest income	**$ 4,217**	$ 4,217	$ 4,176	$ 4,351	$ 4,258	$ 4,253	$ 4,417	$ 4,392
Non-interest income	**3,470**	3,540	3,560	3,721	3,247	3,481	3,539	3,749
Total revenue	**$ 7,687**	$ 7,757	$ 7,736	$ 8,072	$ 7,505	$ 7,734	$ 7,956	$ 8,141
Provision for credit losses	**168**	380	496	764	1,131	2,181	1,846	926
Non-interest expenses	**4,271**	4,097	4,042	4,208	4,057	4,018	4,363	4,418
Income tax expense	**689**	738	742	702	418	231	423	471
Net income	**$ 2,559**	$ 2,542	$ 2,456	$ 2,398	$ 1,899	$ 1,304	$ 1,324	$ 2,326
Basic earnings per share ($)	**1.98**	2.00	1.89	1.87	1.44	1.10	1.03	1.86
Diluted earnings per share ($)	**1.97**	1.99	1.88	1.86	1.42	1.04	1.00	1.84
Net interest margin (%)(1)	**2.17**	2.23	2.26	2.27	2.22	2.10	2.35	2.45
Effective tax rate (%)(2)	**21.2**	22.5	23.2	22.7	18.0	15.1	24.2	16.8
Adjusted results(1)								
Adjusted net income	**$ 2,716**	$ 2,560	$ 2,475	$ 2,418	$ 1,938	$ 1,308	$ 1,371	$ 2,344
Adjusted diluted earnings per share	**$ 2.10**	$ 2.01	$ 1.90	$ 1.88	$ 1.45	$ 1.04	$ 1.04	$ 1.83

(1) Refer to page 17 for a discussion of non-GAAP measures.
(2) Refer to Glossary on page 141 for the description of the measure.

Earnings have been trending upwards after initial reductions in net income due to the impact of the COVID-19 pandemic. Results this quarter increased both quarter over quarter and year over year, mainly driven by lower loan loss provision as a result of more favourable macroeconomic conditions. The results in 2020 were negatively impacted by COVID-19 which resulted in significantly higher provision for credit losses and lower personal and commercial revenue, partly offset by strong capital markets results.

Canadian Banking results have improved every quarter during 2021, driven by improved revenue growth, ongoing expense management and lower loan loss provisions, as a result of a more favourable macroeconomic outlook and lower net writeoffs. Results in 2020 reflected the impact of COVID-19, with higher loan loss provisions, lower fee revenue and lower net interest margins from central bank rate cuts.

International Banking results have reflected improvements in every quarter of 2021 compared to the negative impacts of the pandemic during 2020, as well as reductions due to divested operations. Loan losses have normalized, and expense remain well controlled, driven by cost management initiatives. Margins remain under pressure due to the economic environment and central bank rate cuts in 2020.

Global Wealth Management has delivered strong earnings growth in recent quarters. Revenue increases were driven by strong sales momentum and elevated levels of market activity in the Canadian asset management and wealth advisory businesses. Expense growth in recent quarters was due largely to high volume-driven expenses.

Global Banking and Markets results are driven mainly by market conditions that impact client activity in the corporate and investment banking and capital markets businesses. Following the onset of the COVID-19 pandemic, 2020 was characterized by elevated levels of market volatility. Capital markets businesses benefited from these market conditions as client activity increased. Corporate banking also benefited from strong growth in loan and deposit volumes. The results of the recent quarters reflect the normalization of capital markets business following elevated levels in 2020 and the exit of the metals business in 2021. This quarter's results benefitted from loan loss reversals, driven by the more favourable macroeconomic outlook.

Provision for credit losses

The provision for credit losses decreased significantly during the period driven by releases of performing loan provisions due to improving macroeconomic and credit outlook across all portfolios. Impaired loan provisions also trended lower due to lower formations across markets.

Non-interest expenses

Non-interest expenses have been well controlled over the period, although certain quarters have been impacted by seasonality or adjusting items. This trend has been driven by the favourable impact of foreign currency translation and divested operations, and ongoing expense management and efficiency initiatives. Partly offsetting were higher performance-based compensation, technology-related costs to support business growth, the investment in the SCENE loyalty program and charges related to the metals business.

Provision for income taxes

The effective tax rate was 21.2% this quarter and averaged 20.5% over the period, with a range of 15.1% to 24.2%. Effective tax rates were impacted by divestitures, varying levels of provision for credit losses and net income earned in foreign jurisdictions, as well as the variability of tax-exempt dividend income.

BUSINESS LINE OVERVIEW

Business line results are presented on a taxable equivalent basis, adjusting for the following:

- The Bank analyzes revenue on a taxable equivalent basis (TEB) for business lines. This methodology grosses up tax-exempt income earned on certain securities reported in either net interest income or non-interest income to an equivalent before tax basis. A corresponding increase is made to the provision for income taxes; hence, there is no impact on net income. Management believes that this basis for measurement provides a uniform comparability of net interest income and non-interest income arising from both taxable and non-taxable sources and facilitates a consistent basis of measurement. While other banks also use TEB, their methodology may not be comparable to the Bank's methodology. A segment's revenue and provision for income taxes are grossed up by the taxable equivalent amount. The elimination of the TEB gross up is recorded in the Other segment.
- For business line performance assessment and reporting, net income from associated corporations, which is anafter-tax number, is adjusted to normalize for income taxes. The tax normalization adjustment grosses up the amount of net income from associated corporations and normalizes the effective tax rate in the business lines to better present the contribution of the associated corporations to the business line results.
- International Banking business segment results are analyzed on a constant dollar basis. Under constant dollar basis, prior period amounts are recalculated using current period average foreign currency rates thereby eliminating the impact of foreign currency translation. The Bank believes that reporting in constant dollar is useful for readers in assessing ongoing business performance.

Below are the results of the Bank's four business operating segments for 2021.

CANADIAN BANKING

Canadian Banking reported net income attributable to equity holders of $4,155 million in 2021, an increase of $1,619 million or 64% compared to prior year. Adjusted net income attributable to equity holders was $4,171 million, an increase of $1,567 million or 60%. The increase was due primarily to lower provision for credit losses and higher revenues driven by non-interest income and strong loan growth. Return on equity was 25.2% compared to 15.1% in the prior year. Adjusted return on equity was 25.3% compared to 15.5% in the prior year.

INTERNATIONAL BANKING

Net income attributable to equity holders was $1,823 million, an increase of $843 million. Adjusted net income attributable to equity holders was $1,855 million, an increase of $707 million. This increase was due largely to lower provision for credit losses and non-interest expenses partially offset by lower revenues, higher income taxes, the impact of divested operations, and the negative impact of foreign currency translation. Return on equity was 10.4% compared to 5.0% in the prior year. Adjusted return on equity was 10.6% compared to 5.8% in the prior year.

GLOBAL WEALTH MANAGEMENT

Net income attributable to equity holders was $1,565 million, an increase of $313 million or 25%. Adjusted net income attributable to equity holders increased $295 million or 23%. The increase was due primarily to higher mutual fund fees, brokerage revenues, and elevated performance fees, partially offset by higher volume related expenses. Return on equity was 16.7% compared to 13.5% in the prior year. Adjusted return on equity was 17.0% compared to 14.0% in the prior year.

GLOBAL BANKING AND MARKETS

Global Banking and Markets reported net income attributable to equity holders of $2,075 million, an increase of $120 million or 6% from last year. Adjusted net income attributable to equity holders increased by $41 million or 2%. Higher income in business banking, lower provision for credit losses, and lower expenses, were partly offset by lower income in capital markets. Return on equity was 16.5% compared to 14.8% last year. Adjusted return on equity was 16.5% compared to 15.4% last year.

KEY PERFORMANCE INDICATORS FOR ALL BUSINESS LINES

Management uses a number of key metrics to monitor business line performance:

- Net income
- Return on equity
- Productivity ratio
- Provision for credit losses ratio

T18 Financial performance – Reported

For the year ended October 31, 2021 ($ millions) (1)	Canadian Banking	International Banking	Global Wealth Management	Global Banking and Markets	Other(2)	Total
Net interest income(3)	$ 8,030	$ 6,625	$ 628	$ 1,436	$ 242	$ 16,961
Non-interest income(3)	2,868	2,993	4,752	3,587	91	14,291
Total revenue(3)	10,898	9,618	5,380	5,023	333	31,252
Provision for credit losses	333	1,574	2	(100)	(1)	1,808
Non-interest expenses	4,951	5,254	3,255	2,458	700	16,618
Provision for income taxes (3)	1,459	635	549	590	(362)	2,871
Net income	$ 4,155	$ 2,155	$ 1,574	$ 2,075	$ (4)	$ 9,955
Net income attributable to non-controlling interests in subsidiaries	–	332	9	–	(10)	331
Net income attributable to equity holders of the Bank	$ 4,155	$ 1,823	$ 1,565	$ 2,075	$ 6	$ 9,624
Return on equity(%) (4)	25.2%	10.4%	16.7%	16.5%	–%	14.7%
Total average assets ($ billions)	$ 381	$ 194	$ 29	$ 401	$ 152	$ 1,157
Total average liabilities ($ billions)	$ 313	$ 149	$ 45	$ 385	$ 193	$ 1,085

(1) The amounts for the years ended October 31, 2021 and October 31, 2020 have been prepared in accordance with IFRS 16; prior year amounts have not been restated.
(2) The Other category represents smaller operating segments, including Group Treasury, and other corporate adjustments that are not allocated to an operating segment. Corporate adjustments include the net residual in matched maturity transfer pricing, the elimination of the tax-exempt income gross-up reported in net interest income, non-interest income and provision for income taxes, and differences in the actual amount of costs incurred and charged to the operating segments.
(3) Taxable equivalent basis. Refer to Glossary.
(4) Refer to Non-GAAP Measures on page 17 for the description of the measure.

For the year ended October 31, 2020 ($ millions)	Canadian Banking	International Banking	Global Wealth Management	Global Banking and Markets	Other(1)	Total
Net interest income(2)	$ 7,838	$ 7,603	$ 575	$ 1,435	$ (131)	$ 17,320
Non-interest income(2)	2,461	3,207	4,009	3,947	392	14,016
Total revenue(2)	10,299	10,810	4,584	5,382	261	31,336
Provision for credit losses	2,073	3,613	7	390	1	6,084
Non-interest expenses	4,811	5,943	2,878	2,473	751	16,856
Provision for income taxes (2)	879	182	437	564	(519)	1,543
Net income	$ 2,536	$ 1,072	$ 1,262	$ 1,955	$ 28	$ 6,853
Net income attributable to non-controlling interests in subsidiaries	–	92	10	–	(27)	75
Net income attributable to equity holders of the Bank	$ 2,536	$ 980	$ 1,252	$ 1,955	$ 55	$ 6,778
Return on equity(%) (3)	15.1%	5.0%	13.5%	14.8%	–%	10.4%
Total average assets ($ billions)	$ 359	$ 206	$ 26	$ 412	$ 158	$ 1,161
Total average liabilities ($ billions)	$ 277	$ 155	$ 39	$ 379	$ 240	$ 1,090

(1) The Other category represents smaller operating segments, including Group Treasury, and other corporate adjustments that are not allocated to an operating segment. Corporate adjustments include the net residual in matched maturity transfer pricing, the elimination of the tax-exempt income gross-up reported in net interest income, non-interest income and provision for income taxes, and differences in the actual amount of costs incurred and charged to the operating segments.
(2) Taxable equivalent basis. Refer to Glossary.
(3) Refer to Non-GAAP Measures on page 17 for the description of the measure.

For the year ended October 31, 2019 ($ millions)	Canadian Banking	International Banking	Global Wealth Management	Global Banking and Markets	Other(1)	Total
Net interest income(2)	$ 7,848	$ 8,353	$ 564	$ 1,396	$ (984)	$ 17,177
Non-interest income(2)	2,616	4,366	3,937	3,084	(146)	13,857
Total revenue(2)	10,464	12,719	4,501	4,480	(1,130)	31,034
Provision for credit losses	972	2,076	–	(22)	1	3,027
Non-interest expenses	4,772	6,596	2,905	2,463	1	16,737
Provision for income taxes (2)	1,232	909	412	505	(586)	2,472
Net income	$ 3,488	$ 3,138	$ 1,184	$ 1,534	$ (546)	$ 8,798
Net income attributable to non-controlling interests in subsidiaries	–	373	18	–	17	408
Net income attributable to equity holders of the Bank	$ 3,488	$ 2,765	$ 1,166	$ 1,534	$ (563)	$ 8,390
Return on equity(%) (3)	23.2%	13.2%	12.7%	13.3%	–%	13.1%
Total average assets ($ billions)	$ 340	$ 201	$ 25	$ 372	$ 118	$ 1,056
Total average liabilities ($ billions)	$ 255	$ 153	$ 32	$ 304	$ 243	$ 987

(1) The Other category represents smaller operating segments, including Group Treasury, and other corporate adjustments that are not allocated to an operating segment. Corporate adjustments include the net residual in matched maturity transfer pricing, the elimination of the tax-exempt income gross-up reported in net interest income, non-interest income and provision for income taxes, and differences in the actual amount of costs incurred and charged to the operating segments.
(2) Taxable equivalent basis. Refer to Glossary.
(3) Refer to Non-GAAP Measures on page 17 for the description of the measure.

T18A Financial performance – Adjusted

For the year ended October 31, 2021 ($ millions) (1)	Canadian Banking	International Banking	Global Wealth Management	Global Banking and Markets	Other	Total
Net interest income	**$ 8,030**	**$ 6,625**	**$ 628**	**$ 1,436**	**$ 242**	**$ 16,961**
Non-interest income	**2,868**	**2,993**	**4,752**	**3,587**	**91**	**14,291**
Total revenue	**10,898**	**9,618**	**5,380**	**5,023**	**333**	**31,252**
Provision for credit losses	**333**	**1,574**	**2**	**(100)**	**(1)**	**1,808**
Non-interest expenses	**4,929**	**5,209**	**3,219**	**2,458**	**512**	**16,327**
Provision for income taxes	**1,465**	**648**	**558**	**590**	**(313)**	**2,948**
Net income	**$ 4,171**	**$ 2,187**	**$ 1,601**	**$ 2,075**	**$ 135**	**$ 10,169**
Net income attributable to non-controlling interests in subsidiaries	**–**	**332**	**9**	**–**	**–**	**341**
Net income attributable to equity holders of the Bank	**$ 4,171**	**$ 1,855**	**$ 1,592**	**$ 2,075**	**$ 135**	**$ 9,828**

(1) Refer to Non-GAAP Measures on page 17 for the description of the adjustments.

For the year ended October 31, 2020 ($ millions) (1)	Canadian Banking	International Banking	Global Wealth Management	Global Banking and Markets	Other	Total
Net interest income	$ 7,838	$ 7,603	$ 575	$ 1,435	$ (131)	$ 17,320
Non-interest income	2,461	3,207	4,009	4,049	93	13,819
Total revenue	10,299	10,810	4,584	5,484	(38)	31,139
Provision for credit losses	2,002	3,536	6	384	1	5,929
Non-interest expenses	4,789	5,742	2,818	2,473	692	16,514
Provision for income taxes	904	260	453	593	(475)	1,735
Net income	$ 2,604	$ 1,272	$ 1,307	$ 2,034	$ (256)	$ 6,961
Net income attributable to non-controlling interests in subsidiaries	–	124	10	–	1	135
Net income attributable to equity holders of the Bank	$ 2,604	$ 1,148	$ 1,297	$ 2,034	$ (257)	$ 6,826

(1) Refer to Non-GAAP Measures on page 17 for the description of the adjustments.

For the year ended October 31, 2019 ($ millions) (1)	Canadian Banking	International Banking	Global Wealth Management	Global Banking and Markets	Other	Total
Net interest income	$ 7,848	$ 8,353	$ 564	$ 1,396	$ (984)	$ 17,177
Non-interest income	2,616	4,366	3,937	3,084	(19)	13,984
Total revenue	10,464	12,719	4,501	4,480	(1,003)	31,161
Provision for credit losses	972	1,925	–	(22)	1	2,876
Non-interest expenses	4,750	6,390	2,839	2,463	(20)	16,422
Provision for income taxes	1,238	1,012	429	505	(730)	2,454
Net income	$ 3,504	$ 3,392	$ 1,233	$ 1,534	$ (254)	$ 9,409
Net income attributable to non-controlling interests in subsidiaries	–	439	18	–	1	458
Net income attributable to equity holders of the Bank	$ 3,504	$ 2,953	$ 1,215	$ 1,534	$ (255)	$ 8,951

(1) Refer to Non-GAAP Measures on page 17 for the description of the adjustments.

Canadian Banking

2021 Achievements

Accelerated business performance

- Achieved strong growth in Business Banking by expanding the frontline team, digitizing the end-to-end credit process and launching client insights and pricing platforms to enable its salesforce.
- Reported record mortgage originations, driven in part by continued channel diversification via an expanded Home Financing Advisor team.
- Expanded programs across all channels to better support mortgage and GIC renewals, as well as leveraged the Scotia Total Equity Plan (STEP) to deepen customer relationships.
- Launched Scotia SelectPay, a new payment solution for Scotiabank credit cards that provides customers with the option to convert purchases made on their credit card into smaller installment payments.
- Launched the Global ETF Portfolios in Tangerine, a new offering that provides customers with simple digital and low-cost investment options.

Winning team culture

- Recognized as one of the Best Workplaces™ in Canada by Great Place to Work®.
- Recognized on Refinitiv's 2021 Global List of Top 25 Most Diverse and Inclusive Companies.
- The Scotiabank Women Initiative exceeded its commitment to deploy $3 billion in capital to women-led businesses in Canada.
- Awarded the Most Innovative in Data by The Banker's Global Innovation in Digital Banking Awards 2021, for the second year in a row, recognizing our commitment to use data and analytics to help serve our customers.
- Announced a landmark commitment to Windmill Microlending with a donation of $2.5 million as part of the ScotiaRISE program, which will be directed toward programs that support professionally skilled women immigrants.

Superior customer experience

- Scotiabank ranked #1 in J.D. Power 2021 Canada Online Banking Satisfaction Study for second year in a row, a testament to our commitment to delivering the best customer experience, and focus on fast, easy-to-use and secure online banking services.
- Tangerine ranked #1 in J.D. Power 2021 Canada Retail Banking Satisfaction Study for 10th year in a row.
- ScotiaAdvice+ enhanced our ability to provide comprehensive, relevant advice that is accessible across channels, through a more streamlined customer experience.
- Launched C.MEE, an AI-driven technology that leverages data to enable more positive customer experiences, by analyzing data across customer touchpoints to provide the most relevant advice for our customers.

Digital enablement

- Continued progress with a steady increase in both digital adoption (59% and up 400 bps year-over-year) and unit sales (up 19% over the past year), as well as active digital and mobile users (up 220,000 and 320,000 users, respectively, over the past year).
- Expanded customer digital enablement tools to provide customers more banking options, such as online appointment booking, enhancements to digital mortgage renewals and virtual engagement capabilities with advisors.
- New streamlined business banking front-line technologies aimed to empower relationship managers to have more meaningful client interactions.

Scale our unique partnerships and assets

- Partnered further with Cineplex to bring together the benefits of SCENE with the Scotia Rewards loyalty program, better positioning the Bank for future expansion by providing opportunities for customer and partner expansion.
- Scotiabank was proud to work alongside MLSE, Team Toronto, the City of Toronto and other vaccination partners to host the "Our Winning Shot" clinic at Scotiabank Arena, with a record-breaking 26,000 Canadians vaccinated in a single day.

Business Profile

Canadian Banking provides a full suite of financial advice and banking solutions, supported by an excellent customer experience, to over 10 million Retail, Small Business and Commercial Banking customers. It serves these customers through its network of 954 branches and 3,766 automated banking machines (ABMs), as well as online, mobile and telephone banking, and specialized sales teams. Canadian Banking also provides an alternative self-directed banking solution to over 2 million Tangerine Bank customers. Canadian Banking is comprised of the following areas:

- Retail banking provides financial advice and solutions along with day-to-day banking products, including debit cards, chequing accounts, credit cards, investments, mortgages, loans and related creditor insurance products to retail customers. Tangerine Bank provides day-to-day banking products, including chequing and saving accounts, credit cards, mortgages, loans and investments to self-directed customers.
- Business banking delivers advice and a full suite of lending, deposit, cash management and trade finance solutions to small, medium and large businesses, including automotive dealers and their customers to whom we provide retail automotive financing solutions.

Strategy

Canadian Banking continued to prioritize providing customer and employee support initiatives throughout 2021. This included focusing on the health and safety of both customers and employees, supporting Retail and Business Banking customers financially, while delivering accelerated revenue and earnings growth to solidify our top 3 position in Canada across key market share measures.

Canadian Banking will continue to execute its long-term strategy to deliver stable and consistent earnings, including businesses and products that deliver higher returns on equity. Our ongoing efforts focus on building stronger relationships with our customers to increase engagement and

loyalty, investing in digital and analytics capabilities to understand and anticipate customer needs, and developing a high-quality and diverse team of Scotiabank employees.

2022 Priorities

- **Deliver on our strategic initiatives:** Continue to deliver consistent and stable long-term earnings growth by enhancing our return on equity across Retail, Business Banking and Tangerine.
- **Deliver a differentiated customer experience:** Progress toward becoming the #1 bank for our customers, by providing differentiated focus, service, and advice to drive deeper relationships, loyalty and customer engagement.
- **Strengthen our winning team culture:** Continue to instill a winning and inclusive culture, with a focus on prioritizing customers and improving sustainable business performance, further strengthening our RESULTS-driven engagement (RESULTS: Revenue, Earnings, Simplify, Urgency, Listen, Trust, Support).
- **Diversity & Inclusion:** Continue to build an inclusive workplace where our employees from all backgrounds can thrive.
- **Accelerate data & analytics, technology, and digital capabilities:** Strengthen capabilities across data, technology and digital to support salesforce enablement, customer self-serve and assisted experiences, and insight-driven reporting and decision-making.
- **Leverage unique partnerships and assets:** Further utilize and expand our dynamic long-term partnerships and assets, including MLSE, SCENE+ loyalty program, and our Wealth businesses, to generate customer awareness, engagement and growth across the Canadian Banking franchise.

T19 Canadian Banking financial performance

($ millions)	2021(1)	2020(1)	2019(2)
Reported results			
Net interest income(3)	$ 8,030	$ 7,838	$ 7,848
Non-interest income(3)(4)	2,868	2,461	2,616
Total revenue(3)	10,898	10,299	10,464
Provision for credit losses	333	2,073	972
Non-interest expenses	4,951	4,811	4,772
Income tax expense	1,459	879	1,232
Net income	$ 4,155	$ 2,536	$ 3,488
Net income attributable to non-controlling interests in subsidiaries	–	–	–
Net income attributable to equity holders of the Bank	$ 4,155	$ 2,536	$ 3,488
Key ratios and other financial data			
Return on equity(5)	25.2%	15.1%	23.2%
Productivity(3)(6)	45.4%	46.7%	45.6%
Net interest margin(5)	2.23%	2.30%	2.41%
Provision for credit losses – performing (Stages 1 and 2)	$ (357)	$ 943	$ (2)
Provision for credit losses – impaired (Stage 3)	$ 690	$ 1,130	$ 974
Provision for credit losses as a percentage of average net loans and acceptances (6)	0.09%	0.59%	0.29%
Provision for credit losses on impaired loans as a percentage of average net loans and acceptances (6)	0.18%	0.32%	0.29%
Net write-offs as a percentage of average net loans and acceptances (6)	0.19%	0.29%	0.29%
Selected Consolidated Statement of Financial Position data (average balances)			
Earning assets(5)	$ 376,670	$ 354,669	$ 336,813
Total assets	380,772	358,770	340,171
Deposits	294,499	261,172	241,944
Total liabilities	313,028	276,774	255,255

(1) The amounts for the years ended October 31, 2021 and October 31, 2020 have been prepared in accordance with IFRS 16; prior year amounts have not been restated.
(2) The amounts for the year ended October 31, 2019 have been restated to reflect the impact of the establishment of Global Wealth Management as a separate business segment.
(3) Taxable equivalent basis (TEB).
(4) Includes net income from investments in associated corporations of $87 (2020 – $56; 2019 – $65).
(5) Refer to Non-GAAP Measures on page 17 for the description of the measure.
(6) Refer to Glossary on page 141 for the description of the measure.

T19A Adjusted Canadian Banking financial performance(1)

($ millions)	2021	2020	2019
Adjusted results			
Net interest income	$ 8,030	$ 7,838	$ 7,848
Non-interest income	2,868	2,461	2,616
Total revenue	10,898	10,299	10,464
Provision for credit losses(2)	333	2,002	972
Non-interest expenses(3)	4,929	4,789	4,750
Income before taxes	5,636	3,508	4,742
Income tax expense	1,465	904	1,238
Net income	$ 4,171	$ 2,604	$ 3,504
Net income attributable to non-controlling interests in subsidiaries (NCI)	–	–	–
Net income attributable to equity holders	$ 4,171	$ 2,604	$ 3,504

(1) Refer to Non-GAAP Measures on page 17 for the description of the adjustments.
(2) Includes adjustment for Allowance for credit losses – Additional scenario of $71 in the first quarter of 2020.
(3) Includes adjustment for Amortization of acquisition-related intangible assets, excluding software, of $22 (2020 – $22; 2019 – $22).

Financial Performance

Net income

Net income attributable to equity holders was $4,155 million, an increase of $1,619 million or 64%. Adjusted net income attributable to equity holders was $4,171 million, an increase of $1,567 million or 60%. The increase was due primarily to lower provision for credit losses and higher revenues, partly offset by higher non-interest expenses.

Average assets and liabilities

Average assets increased $22 billion or 6% to $381 billion. The growth included $21 billion or 10% in residential mortgages and $4 billion or 7% in business loans and acceptances, partially offset by declines of $2 billion or 3% in personal loans and $1 billion or 14% in credit cards.

Average liabilities increased $36 billion or 13% to $313 billion. The growth included $21 billion or 25% in non-personal deposits and $12 billion or 7% in personal deposits.

Revenues

Revenues of $10,898 million increased $599 million or 6%, due to higher non-interest income and net interest income.

Net interest income

Net interest income of $8,030 million increased $192 million or 2%, due primarily to strong loan and deposit growth, partially offset by margin compression. The net interest margin declined seven basis points to 2.23%, primarily driven by changes in business mix and Bank of Canada interest rate cuts in 2020.

Non-interest income

Non-interest income of $2,868 million increased $407 million or 17%. The increase was due primarily to higher banking revenue, elevated private equity gains, and increased mutual fund distribution fees and income from associated corporations.

Retail Banking

Total retail banking revenues were $7,268 million, an increase of $297 million or 4%. Net interest income increased $83 million or 2%, primarily driven by strong volume growth partially offset by margin compression. Non-interest income increased $214 million or 13%, due primarily to higher banking revenue, mutual fund distribution fees, and income from associated corporations.

Business Banking

Total business banking revenues increased $302 million or 9% to $3,630 million. Net interest income increased $109 million or 4% due primarily to growth in business operating accounts, partially offset by margin compression. Non-interest income increased $193 million or 25% due primarily to higher credit fees, elevated private equity gains and increased card revenue.

Non-interest expenses

Non-interest expenses were $4,951 million, up $140 million or 3%, driven mainly by higher technology costs to support business development and higher personnel costs.

Provision for credit losses

The provision for credit losses was $333 million, compared to $2,073 million last year, a decrease of $1,740 million. Adjusted provision for credit losses decreased by $1,669 million. The provision for credit losses ratio was nine basis points, a decrease of 50 basis points. Adjusted provision for credit losses ratio decreased by 48 basis points.

Provision for credit losses on performing loans was a net reversal of $357 million, a decrease of $1,300 million. Adjusted provision for credit losses on performing loans decreased $1,233 million of which $772 million was related to retail and $461 million to commercial. These decreases were driven by the more favourable credit and macroeconomic outlook.

Provision for credit losses on impaired loans was $690 million, a decrease of $440 million. Adjusted provision for credit losses on impaired loans decreased $436 million, due primarily to lower retail provisions driven by lower delinquency. The provision for credit losses ratio on impaired loans was 18 basis points, a decrease of 14 basis points. Adjusted provision for credit losses ratio also decreased by 14 basis points.

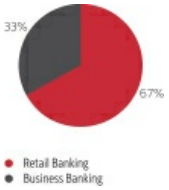
Provision for income taxes

The effective tax rate was 26.0% compared to 25.7% in the prior year.

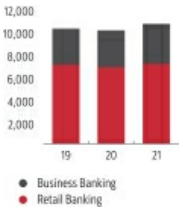
Outlook

Canadian Banking growth is expected to be broad based and supported by improving economic conditions and a rising interest rate environment. Overall asset growth in both retail banking and commercial lending segments is expected to remain strong, with deposit growth moderating from pandemic-influenced highs. Revenue growth is expected to be driven by strong loan growth and higher fee income, while the net interest margin is expected to improve modestly throughout 2022. Provision for credit losses is expected to remain low. Canadian Banking is expected to generate positive operating leverage by maintaining strong expense discipline while continuing to invest in strategic initiatives.

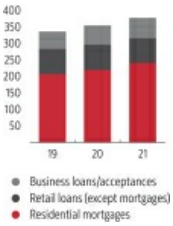
C6 Total revenue



C7 Total revenue by sub-segment $ millions



C8 Average loans and acceptances $ billions



International Banking

2021 Achievements

Improved Business Performance

- Captured business opportunities as economies rebounded.
- Delivered strong mortgage growth, followed by positive momentum in commercial lending in the second half of the year.
- Continued improvement in Credit quality, achieving a PCL ratio below pre-COVID levels.
- Prudently managed our expenses supported by significant digital progress and lower Retail distribution cost.

Accelerate Growth Drivers

- In Corporate & Commercial, maintained #1 position in syndicated loans in Latin America and #1 position in Mexico, Peru, Chile and Colombia; received three awards recognizing our performance: Lead Manager of the Year for Social Bonds, Sustainability-linked Bond of the Year from Environmental Finance, and LatAm Power Deal of the Year from Project Finance International.
- Strengthened the strategic partnership in Insurance with BNP Paribas Cardif to provide integrated solutions in the Pacific Alliance countries. The partnership launched 16+ new products including Health in Mexico, Home in Chile, and Life in Peru and Colombia.

Winning Team Culture

- Recognized as the #1 Best Workplace among Financial Services in Latin America by Great Place to Work.
- Recognized as a Top 10 Great Place to Work in 6 countries: Mexico, Chile, Panama, Costa Rica, Dominican Republic and Uruguay.
- Certified in Chile by EquidadCL as a Top Workplace for LGBTQ+ employees for the third year in a row.
- Certified in Peru by PRESENTE as a Top Workplace for LGBTQ+ Employees.
- Awarded a Bronze Lion in Peru at the Cannes Lions International Festival for campaigns on Gender Equality.

Focused Customer Strategy

- Significant progress towards Leading in Customer Experience; Net Promoter Scores (NPS) rebounded to exceed pre-COVID levels across most of our channels and regions.
- Exceeded or met the market in NPS improvements in our key markets.

Accelerate Digital Transformation

- Strong digital progress across the Pacific Alliance: achieved 55% Digital sales, 52% Digital adoption, and 88% Self-Serve Transactions, with a total of 3.9 million Digital customers and 3.3 million mobile customers.
- Scotiabank was recognized as the Most Innovative in Data by The Banker's Global Innovation in Digital Banking Awards 2021 and Best Digital Initiative in Chile by World Economic Magazine.
- Autonomous Research placed Scotiabank in the top "Sweet Spot – Long Term Winners" quadrant in their annual Digital Banking survey, placing Scotiabank as a top bank among ~60 global peers which achieved significant digital progress during the pandemic.
- Positive customer experience feedback on our new digital offerings including a partnership with Mercado Libre to provide online mortgages in Chile, Digital account opening through branches in Mexico, Digital Fraud Insurance for savings accounts in Colombia, and QR payment and biometric log-in via mobile app in Peru.
- Continued to leverage Digital to capture efficiencies and optimize distribution cost which resulted in a 3% Y/Y reduction in expenses.

Business Profile

International Banking is a strong and diverse franchise with nearly 10 million Retail, Corporate and Commercial customers. The geographical footprint encompasses the Pacific Alliance countries of Mexico, Colombia, Peru and Chile, as well as Central America, the Caribbean, and Uruguay. The Bank is well positioned in the Pacific Alliance, providing the connectivity to do business across the Americas through Corporate Banking and Digital leadership. Our core markets in the Pacific Alliance countries demonstrate attractive demographics, opportunity to grow banking penetration, and strong connectivity with Canada and the U.S.

Strategy

As economies in the region rebounded throughout the year, International Banking launched a series of initiatives to strengthen the business, recover profitability, and invest across our footprint to develop its full potential.

Underpinning the long-term strategy is the focus on being the preferred choice for customers, leveraging digital engagement to deliver superior customer experiences, while driving operational efficiency and outpacing the competition in priority businesses, enabled by a diverse and talented winning team.

2022 Priorities

- **Maintain momentum in business performance:** Accelerate revenue growth, aligned with the macroenvironment, driven by balanced asset growth and fee income, while actively managing expenses.
- **Accelerate growth drivers:** Outpace the competition by continuing to develop our Retail franchise with a focus on affluent customers and acceleration of the Insurance business, growing our Corporate, Commercial, and Capital Markets businesses in the Pacific Alliance, and scaling the Wealth business in close collaboration with Global Wealth Management.
- **Lead in Digital & Customer Experience:** Leverage digital interaction across the entire customer journey to optimize our distribution costs, gradually enable more complex sales and services capabilities, and achieve best-in-class customer loyalty and engagement.
- **Continue to foster a winning team culture:** Lead in Diversity & Inclusion, providing our employees a safe and engaging work environment to attract and retain key talent, while fostering a high performance and results-driven mindset.

T20 International Banking financial performance – Reported

($ millions)	2021(1)	2020(1)	2019(2)
Reported results			
Net interest income(3)	$ 6,625	$ 7,603	$ 8,353
Non-interest income(3)(4)(5)	2,993	3,207	4,366
Total revenue(3)	9,618	10,810	12,719
Provision for credit losses	1,574	3,613	2,076
Non-interest expenses	5,254	5,943	6,596
Income tax expense(3)	635	182	909
Net income	$ 2,155	$ 1,072	$ 3,138
Net income attributable to non-controlling interests in subsidiaries	332	92	373
Net income attributable to equity holders of the Bank	$ 1,823	$ 980	$ 2,765
Key ratios and other financial data			
Return on equity(6)	10.4%	5.0%	13.2%
Productivity(3)(7)	54.6%	55.0%	51.9%
Net interest margin(6)	3.85%	4.18%	4.54%
Provision for credit losses – performing (Stages 1 and 2)	$ (1,005)	1,412	154
Provision for credit losses – impaired (Stage 3)	$ 2,579	2,201	1,922
Provision for credit losses as a percentage of average net loans and acceptances (7)	1.15%	2.45%	1.40%
Provision for credit losses on impaired loans as a percentage of average net loans and acceptances (7)	1.88%	1.49%	1.30%
Net write-offs as a percentage of average net loans and acceptances (7)	1.89%	1.24%	1.29%
Selected Consolidated Statement of Financial Position data (average balances)			
Earning assets(6)	$ 178,906	$ 188,308	$ 186,331
Total assets	194,124	206,382	200,596
Deposits	103,485	110,668	114,671
Total liabilities	148,531	154,894	152,858

(1) The amounts for the years ended October 31, 2021 and October 31, 2020 have been prepared in accordance with IFRS 16; prior year amounts have not been restated.
(2) The amounts for the year ended October 31, 2019 have been restated to reflect the impact of the establishment of Global Wealth Management as a separate business segment.
(3) Taxable equivalent basis (TEB).
(4) Includes net income from investments in associated corporations of $206 (2020 – $243; 2019 – $753).
(5) Includes one additional month of earnings relating to Mexico of $51 (after tax and NCI $37) for the year ended October 31, 2020. Includes one additional month of earnings relating to Peru of $57 (after tax and NCI $41) for the year ended October 31, 2019.
(6) Refer to Non-GAAP Measures on page 17 for the description of the measure.
(7) Refer to Glossary on page 141 for the description of the measure.

T20A Adjusted International Banking financial performance(1)

($ millions)	2021	2020	2019
Adjusted results			
Net interest income	$ 6,625	$ 7,603	$ 8,353
Non-interest income	2,993	3,207	4,366
Total revenue	9,618	10,810	12,719
Provision for credit losses(2)	1,574	3,536	1,925
Non-interest expenses(3)(4)	5,209	5,742	6,390
Income before taxes	2,835	1,532	4,404
Income tax expense	648	260	1,012
Net income	$ 2,187	$ 1,272	$ 3,392
Net income attributable to non-controlling interests (NCI)	332	124	439
Net income attributable to equity holders	$ 1,855	$ 1,148	$ 2,953

(1) Refer to Non-GAAP Measures on page 17 for the description of the adjustments.
(2) Includes adjustment for Allowance for credit losses – Additional scenario of $77 in the first quarter of 2020, and Day 1 provision for credit losses on acquired performing financial instruments of $151 for the year ended October 31, 2019.
(3) Includes adjustment for Integration costs of $154 in 2020 and $151 in 2019.
(4) Includes adjustment for Amortization of acquisition-related intangible assets, excluding software, of $45 (2020 – $47; 2019 – $55).

T21 International Banking – Income from divested operations-Reported

($ millions)	2021	2020	2019
Net interest income	**$ 23**	$ 123	$ 484
Non-interest income	**13**	87	762
Total revenue	**36**	210	1,246
Provision for credit losses	**9**	27	21
Non-interest expenses	**16**	88	357
Income before taxes	**11**	95	868
Income tax expense	**4**	25	213
Net income	**$ 7**	$ 70	$ 655
Net income attributable to non-controlling interests (NCI)	**–**	–	–
Net income attributable to equity holders – relating to divested operations	**$ 7**	$ 70	$ 655

Financial Performance

Net income

Net income attributable to equity holders was $1,823 million, an increase of $843 million. Adjusted net income attributable to equity holders was $1,855 million, an increase of $707 million. This increase was due largely to lower provision for credit losses and non-interest expenses partially offset by lower revenues, higher income taxes, the impact of divested operations, and the negative impact of foreign currency translation.

Financial Performance on an Adjusted and Constant Dollar Basis

The discussion below on the results of operations is on an adjusted and constant dollar basis. Under the constant dollar basis, prior period amounts are recalculated using current period average foreign currency rates, which is a non-GAAP financial measure (refer to Non-GAAP Measures). The Bank believes that constant dollar is useful for readers in assessing ongoing business performance. Ratios are on a reported basis.

T22 International Banking financial performance on adjusted and constant dollar basis

($ millions)	2021(1)	2020(1)	2019(2)
Net interest income(3)	$ 6,625	$ 7,060	$ 7,322
Non-interest income(3)(4)	2,993	3,015	3,981
Total revenue(3)	9,618	10,075	11,303
Provision for credit losses	1,574	3,297	1,670
Non-interest expenses	5,209	5,414	5,683
Income tax expense(3)	648	231	890
Net income on constant dollar basis	$ 2,187	$ 1,133	$ 3,060
Net income attributable to non-controlling interests in subsidiaries on a constant dollar basis	332	117	382
Net income attributable to equity holders of the Bank on a constant dollar basis	$ 1,855	$ 1,016	$ 2,678
Selected Consolidated Statement of Financial Position data (average balances)			
Total assets	194,124	194,339	179,633
Total liabilities	148,531	147,335	137,005

(1) The amounts for the years ended October 31, 2021 and October 31, 2020 have been prepared in accordance with IFRS 16; prior year amounts have not been restated.
(2) The amounts for the year ended October 31, 2019 have been restated to reflect the impact of the establishment of Global Wealth Management as a separate business segment.
(3) Taxable equivalent basis (TEB).
(4) Includes net income from investments in associated corporations of $206 (2020 – $240; 2019 – $726).

T22A International Banking – Income from divested operations on a constant dollar basis

($ millions)	2021	2020	2019
Net interest income	$ 23	$ 116	$ 456
Non-interest income	13	84	733
Total revenue	36	200	1,189
Provision for credit losses	9	25	20
Non-interest expenses	16	84	337
Income before taxes	11	91	832
Income tax expense	4	25	204
Net income	$ 7	$ 66	$ 628
Net income attributable to non-controlling interests (NCI)	–	–	–
Net income attributable to equity holders – relating to divested operations	$ 7	$ 66	$ 628

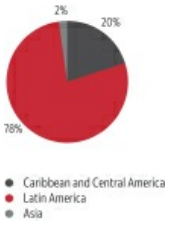
Net income

Net income attributable to equity holders was $1,823 million, an increase of $966 million or 113%. Adjusted net income attributable to equity holders was $1,855 million, up $839 million or 83%. The increase was due largely to lower provision for credit losses on performing loans, lower non-interest expenses, offset partially by lower revenues and higher income taxes.

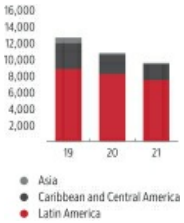
Assets and liabilities

Average assets of $194 billion were in line with last year. Total loans declined by 1%, with commercial down 1% and retail loans down 2%, mainly in the Caribbean and Central America region.

C9 Total revenue



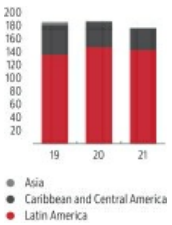
C10 Total revenue by region $ millions



C11 Average loans and acceptances $ billions



C12 Average earning assets(1) by region $ billions



(1) Average earning assets excluding bankers acceptances

Average liabilities of $149 billion increased $1 billion or 1% driven by higher funding from central banks. Total deposits decreased by 1% due mainly to the impact of divested operations of 2%. This was partly offset by growth in personal deposits.

Revenues

Total revenues were $9,618 million, down $457 million or 5%. The impact of divested operations was 2%. There was also lower net-interest income, investment gains, and card fees, partially offset by higher banking fees and income from associated corporations.

Net Interest Income

Net interest income was $6,625 million, down 6%. The decline was due mainly to margin compression and a 1% decline in loans driven mainly by lower personal loans and credit cards. Net interest margin declined by 33 basis points to 3.85% due primarily to changes in business mix and rate reductions across the footprint. The impact of divested operations on net interest income was 1%.

Non-interest income

Non-interest income was $2,993 million, down 1%. The impact of divested operations on non-interest income was 3%. The growth was driven by higher banking fees and trading revenues, partially offset by lower card fees, and the benefit of one additional month of earnings from the Alignment of the reporting period of Mexico with the Bank ("Alignment of the reporting period") last year.

Latin America

Total revenues of $7,519 million decreased $170 million from the prior year. Net interest income was down $202 million or 4% due to margin compression, partially offset by loan growth of 1%. Non-interest income was up $32 million or 1%, driven primarily by higher banking fees and trading revenues, partially offset by lower card fees, investment gains and the benefit of one additional month of earnings from the Alignment of the reporting period of Mexico with the Bank ("Alignment of reporting period") last year.

Caribbean and Central America

Total revenues were $1,927 million, down $275 million or 12% over the last year, with net interest income down $235 million or 15% and non-interest income down $40 million or 6%. The impact of divested operations was 5%. The remaining decrease was driven primarily by margin compression and a decline in loans.

Asia

Total revenues were $170 million, down $14 million or 7% over last year, due largely to the impact of divested operations.

Non-interest expenses

Non-interest expenses were $5,254 million, down $349 million or 6%. On an adjusted basis, non-interest expenses decreased 4% due to the impact of divested operations, lower salaries and employee benefits, technology cost and professional fees.

Provision for credit losses

The provision for credit losses was $1,574 million compared to $3,369 million last year. Adjusted provision for credit losses decreased $1,723 million, driven primarily by lower retail provisions on performing loans. The provision for credit losses ratio was 115 basis points, a decrease of 130 basis points and adjusted provision for credit losses ratio decreased by 125 basis points.

Provision for credit losses on performing loans was a net reversal of $1,005 million, a decrease of $2,311 million. Adjusted provision for credit losses on performing loans decreased $2,266 million, the majority of which related to retail, driven by the more favourable macroeconomic outlook as well as credit migration to impaired loans across most markets.

Provision for credit losses on impaired loans was $2,579 million, an increase of $517 million. Adjusted provision for credit losses on impaired loans was up $542 million due primarily to higher retail provisions, driven by credit migration across most markets. The provision for credit losses ratio on impaired loans was 188 basis points, an increase of 39 basis points and adjusted provision for credit losses ratio increased by 41 basis points.

Provision for income taxes

The effective tax rate was 22.8% compared to 14.5% last year. On an adjusted basis, the effective tax rate was 22.8%, compared to 17.0% last year, due primarily to significantly higher loan loss provisions recorded in entities that operate in higher tax rate jurisdictions last year, partially offset by inflationary adjustments in Mexico and Chile this year.

Outlook

International Banking earnings are expected to grow through 2022 from solid loan and revenue growth, benefitting from improving economic conditions across the footprint. Additionally, central banks are expected to continue raising interest rates across the region that should improve net interest margins through 2022. Provision for credit losses is expected to remain low due to stable business mix and improvement in credit quality. International Banking expects to deliver positive operating leverage through prudent expense management, while continuing to benefit from digital investments, and improving efficiency. The results could be impacted by a potentially stronger Canadian dollar.

Global Wealth Management

2021 Achievements

Maximize growth in asset management and advisory businesses

- Strong investment results in 1832 Asset Management, with Dynamic Funds having 88% of assets in the top two quartiles over a five year period, as of October, ranking Dynamic Funds #2 vs independent mutual fund companies.
- Record retail mutual fund net sales of approximately $12 billion in Scotia Global Asset Management.
- Stable platforms and client-focused teams in Scotia iTRADE have enabled the business to manage sustained record call volumes and new account growth, leading to higher commission and FX revenues.

Focus on Partnerships

- Continued focus on delivering the entire bank to clients and drive partnerships across our businesses.
- Expanded institutional sales internationally with a focus on value added investment mandates in priority Latin American markets.
- Scotiabank and MD Financial continue to make a meaningful impact in support of Canada's physicians and the communities they serve through the Canadian Medical Association affinity agreement to support a vibrant medical profession and a healthy population with a focus on physician health and wellness. To date, Scotiabank and MD Financial Management have committed $39.2 million to support physicians, medical learners and the communities they serve across Canada.

Expand international capabilities and offering

- Industry leading Asset Management capabilities with the Mexico Asset Management team ranked as Morningstar's best Asset Manager in the Equity Funds category and Chile awarded Morningstar's Best International Funds manager award and coming in second place for Best Balanced Funds manager.
- Scotiabank and Trust (Cayman) won two Captive International Cayman Awards for the Bank of the Year and Letters of Credit and Trusts Provider of the Year.

Select award highlights

- Scotia Global Asset Management was recognized for its strong performance across Dynamic Funds and ScotiaFunds brands by winning 20 Lipper Fund Awards and 41 FundGrade A+ awards for 2020, announced in 2021.
- The Dynamic Funds Contact Centre was ranked #1 for 2020 by Environics.
- Scotia iTRADE tied with RBC and BMO (among bank-owned brokerage firms) receiving a B grade in The Globe and Mail's Annual Ranking of Online Brokerages.
- Scotia iTRADE ranked #2 among all bank-owned firms in the 2020 Canadian Online Brokerage Firm Experience rankings by Surviscor for the third consecutive year.
- ScotiaMcLeod Investment Portfolios ranked #1, up from #3 in 2020 for Full-Service Brokerage Firms by Total Assets in In-House Managed Wrap Programs.
- Scotia Wealth Management wins Global Finance 'Best Private Bank' award in two categories: 1) Best Private Bank for Net Worth between $1 million and $24.9 million (Global Category) and 2) Best Private Bank for Canada (Country Category).

Business Profile

Global Wealth Management is focused on delivering comprehensive wealth management advice and solutions to clients across Scotiabank's footprint. Global Wealth Management serves over 2 million investment fund and advisory clients across 13 countries – administering over $500 billion in assets.

Through organic growth and acquisitions, Global Wealth Management has built a robust client-centric business with comprehensive advice, products, and platforms to meet a broad range of client needs.

Global Wealth Management is comprised of the following businesses:

- **Wealth Management:** Online brokerage (Scotia iTRADE), Mobile investment specialists (Scotiabank), Full-service brokerage (ScotiaMcLeod), Trust, Private Banking, Private Investment Counsel (Scotia Wealth Management, Jarislowsky Fraser, and MD Financial Management)
- **Asset Management:** Retail mutual funds (Scotia & Dynamic Funds), Exchange Traded Funds (Scotia & Dynamic Funds), Liquid Alternatives (Dynamic Funds), Institutional funds (Scotia & Jarislowsky Fraser)

Scotiatrust, ScotiaMcLeod, Scotia iTRADE, Private Banking, Private Investment Counsel, 1832 Asset Management and Dynamic Funds are top performers in key industry metrics.

Strategy

Global Wealth Management continues to execute on its strategic focus on providing clients with strong risk adjusted investment results and financial planning to provide investment solutions to meet their complex needs. The focus continues to be delivering on partnerships and comprehensive advice to best serve clients in the current economic environment and through all market conditions. To best drive that focus, Global Wealth Management is prioritizing investments in digital and investment capabilities, growing our product shelf to serve both retail and institutional clients.

In addition, Global Wealth Management is focused on maximizing our international footprint, including leveraging our institutional management capabilities in priority markets across Latin America.

2022 Priorities

- **Continue product innovation:** Drive innovation in products to deliver industry-leading investment capabilities and performance through purpose-built solutions for customers across Global Wealth Management's brands and channels.
- **Plan-based, holistic advice:** Deliver the entire bank to new and existing clients with complex needs through our Total Wealth strategy.
- **Invest in digital:** Digitally enable sales and advice to support all our distribution channels, including proprietary and 3rd party sales.
- **Focus on international:** Maximize our international footprint by growing the product shelf, and by enhancing internal capabilities in sales and distributions. Invest and grow the International Wealth business by following our retail footprint.
- **Enhance our winning team culture:** Cultivate a talented, diverse workforce, and foster an environment to keep our customers and employees safe, while delivering outstanding results and client experiences.

T23 Global Wealth Management financial performance

($ millions)	2021(1)	2020(1)	2019
Reported results			
Net interest income(2)	**$ 628**	$ 575	$ 564
Non-interest income(2)	**4,752**	4,009	3,937
Total revenue(2)	**5,380**	4,584	4,501
Provision for credit losses	**2**	7	–
Non-interest expenses	**3,255**	2,878	2,905
Income tax expense	**549**	437	412
Net income	**$ 1,574**	$ 1,262	$ 1,184
Net income attributable to non-controlling interests in subsidiaries	**9**	10	18
Net income attributable to equity holders of the Bank	**$ 1,565**	$ 1,252	$ 1,166
Key ratios and other financial data			
Return on equity(3)	**16.7%**	13.5%	12.7%
Productivity(2)(4)	**60.5%**	62.8%	64.5%
Selected Consolidated Statement of Financial Position data (average balances)			
Earning assets(3)	**$ 18,478**	$ 15,435	$ 13,892
Total assets	**28,965**	26,036	24,664
Deposits	**37,013**	32,066	25,880
Total liabilities	**44,950**	38,637	31,896
Other ($ billions)			
Assets under administration(4)(5)	**$ 597**	$ 500	$ 497
Assets under management(4)(5)	**$ 346**	$ 290	$ 302

(1) The amounts for the years ended October 31, 2021 and October 31, 2020 have been prepared in accordance with IFRS 16; prior year amounts have not been restated.
(2) Taxable equivalent basis (TEB).
(3) Refer to Non-GAAP Measures on page 17 for the description of the measure.
(4) Refer to Glossary on page 141 for the description of the measure.
(5) Prior period amounts have been restated to appropriately reflect certain intercompany items.

T23A Adjusted Global Wealth Management financial performance(1)

($ millions)	2021	2020	2019
Adjusted results			
Net interest income	**$ 628**	$ 575	$ 564
Non-interest income	**4,752**	4,009	3,937
Total revenue	**5,380**	4,584	4,501
Provision for credit losses(2)	**2**	6	–
Non-interest expenses(3)(4)	**3,219**	2,818	2,839
Income before taxes	**2,159**	1,760	1,662
Income tax expense	**558**	453	429
Net income	**$ 1,601**	$ 1,307	$ 1,233
Net income attributable to non-controlling interests in subsidiaries (NCI)	**9**	10	18
Net income attributable to equity holders	**$ 1,592**	$ 1,297	$ 1,215

(1) Refer to Non-GAAP Measures on page 17 for the description of the adjustments.
(2) Includes adjustment for Allowance for credit losses – Additional scenario of $1 in the first quarter of 2020.
(3) Includes adjustment for Integration costs of $23 in 2020 and $27 in 2019.
(4) Includes adjustment for Amortization of acquisition-related intangible assets, excluding software, of $36 (2020 – $37; 2019 – $39).

Financial Performance

Net income

Net income attributable to equity holders was $1,565 million, an increase of $313 million or 25%. Adjusted net income attributable to equity holders increased $295 million or 23%. The increase was due primarily to higher mutual fund fees from growth in client assets, brokerage revenues from higher customer activity, and elevated performance fees, partially offset by higher volume related expenses.

Assets under management (AUM) and assets under administration (AUA)

Assets under management of $346 billion increased $56 billion or 19%, while assets under administration of $597 billion increased $97 billion or 19%. The growth in AUM and AUA was due primarily to higher net sales and market appreciation.

Revenues

Revenues of $5,380 million were up $796 million or 17%, due primarily to higher mutual fund fees from growth in client assets, brokerage revenues from higher customer activity, higher net interest income from strong loan and deposit growth, and elevated performance fees.

Net interest income

Net interest income of $628 million increased $53 million or 9%, due primarily to strong loan and deposit growth, partially offset by margin compression.

Non-interest income

Non-interest income of $4,752 million increased $743 million or 19%, due primarily to higher mutual fund fees from growth in client assets, brokerage revenues from higher customer activity, and elevated performance fees.

Canada

Revenues of $4,783 million increased $821 million or 21%, due primarily to higher mutual fund fees from growth in client assets, brokerage revenues from higher customer activity, higher net interest income from strong loan and deposit growth, and elevated performance fees.

International

Revenues of $597 million were down $25 million or 4%. The negative impact of foreign currency translation was 6%. The growth of 2% was due primarily to higher brokerage fees, partially offset by the impact of divested operations and the benefit of aligning the reporting period of Mexico with the Bank in the prior year.

Non-interest expenses

Non-interest expenses of $3,255 million were up $377 million or 13%, due largely to higher volume related expenses, variable compensation driven by higher performance fees, and technology costs to support business initiatives.

Provision for credit losses

The provision for credit losses was $2 million compared to $7 million last year, due primarily to lower performing provisions in the Canadian Wealth portfolio, driven by the more favourable macroeconomic outlook. The provision for credit losses ratio was one basis point.

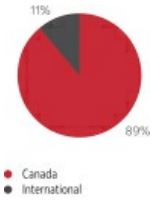
Provision for income taxes

The effective tax rate of 25.8% remained in line with the prior year.

Outlook

Global Wealth Management is well positioned for growth in 2022. This will be underpinned by strong retail mutual fund volume growth driven by active management and multi-brand distribution in Canada; robust growth internationally as we see improved economic activity and strong growth within the Pacific Alliance countries; and continued momentum across our global Advisory businesses as we deliver the entire bank to high net worth clients. Global Wealth Management expects to continue to invest in the business while remaining focused on expense management and delivering positive operating leverage.

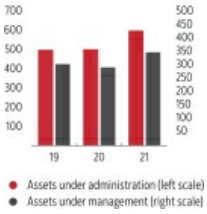
C13 Total revenue



C14 Total revenue by sub-segment $ millions



C15 Wealth management asset growth $ billions, as at October 31



Global Banking and Markets

2021 Achievements

Increase our relevance to our corporate clients and capture more of the non-lending wallet:

- Focused on origination businesses, solidifying areas of strength and growing in select new sectors, such as Healthcare and Technology in the Americas.
- Launched the SIDAC Capital Markets platform in Dublin, enabling us to continue connecting Americas clients with services in Europe in a post-Brexit environment.
- Launched Global Corporate Access team to better align priority clients with institutional investors to further demonstrate distribution capabilities.
- Enhanced our position as a leader in the Environmental, Social, and Governance space by integrating sustainability across departments and product offerings in order to provide innovative sustainable finance solutions for our clients.

Strengthen capital markets offerings:

- Launched ScotiaRED, a new brand that unites technology-driven electronic execution solutions for capital markets clients across geographic footprint.
- Launched new suite of Scotia Index Tracker Exchange-Traded Funds, in partnership with Global Wealth Management and Tangerine.
- In Canada, launched Janus Public a predictive insights platform for cash equities that provides the sales and trading teams with actionable customer and market behavior insights.

Build on our presence in the Americas:

- Continuous progress on multi-year strategy of creating a top-tier local and cross-border wholesale banking business in the Americas.
- Introduced dedicated Latam ECM coverage to further our ability to capitalize on opportunities.
- Launched newly enhanced electronic trading capabilities in government bonds across Canada and the US.

Select awards and deal highlights:
Awards

- Received the 2021 Risk.net Technology Innovation of the Year Award, for our new risk valuation adjustments (xVA) system.
- Recognized as the Best Foreign Exchange Provider in Canada by Global Finance, given to banks that have demonstrated a commitment to FX and expanding their digital tools to help clients execute their trading strategies and achieve price discovery with ease.
- Awarded the 2020 Best Sustainable Finance Deal – Corporate in Australia and New Zealand by FinanceAsia, for participation in the Sydney Airport's AU$600 million two-way ESG U.S. Private Placement.
- Recognized with the 2021 Environmental Finance Bond Awards for Lead Manager of the Year – Social Bond (Republic of Chile), and Initiative of the Year (Transition Finance Handbook).

Deal highlights

Joint Bookrunner on a number of notable mandates this year, including:

- Manulife Financial's $2.0 billion 60NC5 limited resource capital note – the largest such offering in Canada
- North West Redwater Partnership's $2.0 billion transaction, the largest corporate transaction in Canadian history
- Calgary Airport Authority's inaugural $2.1B six-tranche offering, the largest inaugural bond offering by a Canadian issuer
- TELUS' $750 million sustainability linked bond, the first sustainability linked bond in Canada
- The Republic of Chile's US$10 billion bond issuances, including tranches denominated in Chilean Pesos, US dollars, and Euros
- GFL Environmental's first equity offering since their IPO, raising total proceeds of US$594 million

Financial Advisor on a number of marquee transactions this year, including:

- Brookfield Infrastructure's sale of its Enwave business through two separate transactions valued at US$4.1 billion
- West Fraser Timber's acquisition of Norbord valued at $4.6 billion
- Great Canadian Gaming's sale to Apollo Global Management valued at $3.7 billion
- Endeavour Mining's acquisition of Teranga Gold valued at $3.0 billion
- H&R REIT's spin-off of Primaris REIT valued at $3.2 billion

Business Profile

Global Banking and Markets (GBM) provides corporate clients with lending and transaction services, investment banking advice and access to capital markets. GBM is a full-service wholesale bank in the Americas, with operations in 21 countries, serving clients across Canada, the United States, Latin America, Europe and Asia-Pacific.

Strategy

Our goal is to be recognized as the number one Wholesale Bank in the Americas. In order to achieve this goal, our strategy is grounded in three key pillars: Client, Product, and Geography. We are focused on increasing our relevance with our global clients with leading financial advice and solutions and on expanding our full-service corporate offering, with a key focus on the Americas. We are leveraging our regional and institutional capabilities and delivering profitable growth for the bank's shareholders.

2022 Priorities

- **Client Focus:** Leverage coverage operating model with aligned sector and product expertise to focus on up-tiering and adding new client relationships.
- **Strengthen our capital markets offering:** Execute on capital markets client strategy to drive origination, supported by a strong distribution network, and advance electronic trading capabilities to improve client experience and increase competitiveness.
- **Build on our presence in the Americas:** Deliver US growth strategy, leveraging Europe and Asia for distribution of Americas product and in support of our global corporate clients.
- **Continue enabling our winning culture:** Attract, develop and retain diverse talent in an inclusive and high-performance environment, while keeping the Bank safe.

T24 Global Banking and Markets financial performance

($ millions)	2021(1)	2020(1)	2019
Reported results			
Net interest income(2)	**$ 1,436**	$ 1,435	$ 1,396
Non-interest income(2)	**3,587**	3,947	3,084
Total revenue(2)	**5,023**	5,382	4,480
Provision for credit losses	**(100)**	390	(22)
Non-interest expenses	**2,458**	2,473	2,463
Income tax expense(2)	**590**	564	505
Net income	**$ 2,075**	$ 1,955	$ 1,534
Net income attributable to non-controlling interests in subsidiaries	**–**	–	–
Net income attributable to equity holders of the Bank	**$ 2,075**	$ 1,955	$ 1,534
Key ratios and other financial data			
Return on equity(3)	**16.5%**	14.8%	13.3%
Productivity(2)(4)	**48.9%**	45.9%	55.0%
Provision for credit losses – performing (Stages 1 and 2)	**$ (135)**	$ 257	$ (26)
Provision for credit losses – impaired (Stage 3)	**$ 35**	$ 133	$ 4
Provision for credit losses as a percentage of average net loans and acceptances (4)	**(0.10)%**	0.35%	(0.02)%
Provision for credit losses on impaired loans as a percentage of average net loans and acceptances(4)	**0.03%**	0.12%	–%
Net write-offs as a percentage of average net loans and acceptances (4)	**0.05%**	0.09%	0.03%
Selected Consolidated Statement of Financial Position data (average balances)			
Trading assets	**$ 134,602**	$ 119,611	$ 112,317
Loans and acceptances	**91,809**	103,634	92,977
Earning assets(3)	**363,889**	366,329	337,589
Total assets	**400,909**	412,125	371,909
Deposits	**156,321**	133,536	99,346
Total liabilities	**385,096**	378,971	304,253

(1) The amounts for the years ended October 31, 2021 and October 31, 2020 have been prepared in accordance with IFRS 16; prior year amounts have not been restated.
(2) Taxable equivalent basis (TEB).
(3) Refer to Non-GAAP Measures on page 17 for the description of the measure.
(4) Refer to Glossary on page 141 for the description of the measure.

T24A Adjusted Global Banking and Markets financial performance (1)

($ millions)	2021	2020	2019
Adjusted results			
Net interest income	**$ 1,436**	$ 1,435	$ 1,396
Non-interest income(2)	**3,587**	4,049	3,084
Total revenue	**5,023**	5,484	4,480
Provision for credit losses(3)	**(100)**	384	(22)
Non-interest expenses	**2,458**	2,473	2,463
Income before taxes	**2,665**	2,627	2,039
Income tax expense	**590**	593	505
Net income	**$ 2,075**	$ 2,034	$ 1,534
Net income attributable to non-controlling interests in subsidiaries (NCI)	**–**	–	–
Net income attributable to equity holders	**$ 2,075**	$ 2,034	$ 1,534

(1) Refer to Non-GAAP Measures on page 17 for the description of the adjustments.
(2) Includes adjustment for derivatives valuation of $102 in the first quarter of 2020.
(3) Includes adjustment for Allowance for credit losses – Additional scenario of $6 in the first quarter of 2020.

Financial Performance

Net income

Global Banking and Markets reported net income attributable to equity holders of $2,075 million, an increase of $120 million or 6%. Adjusted net income increased $41 million or 2% due to higher advisory fees, reversals of provision for credit losses and lower operating expenses, partly offset by lower trading-related revenues.

Average assets and liabilities

Average assets decreased by $11 billion or 3% to $401 billion this year, due mainly to decreases in business loans, securities purchased under resale agreements and the impact of foreign currency translation, partially offset by increases in trading securities.

Average liabilities increased by $6 billion or 2% to $385 billion this year mainly due to growth in deposits, partly offset by decline in securities sold under repurchase agreements and the impact of foreign currency translation.

Revenues

Revenues were $5,023 million, a decrease of $359 million or 7%. Adjusted revenues decreased $461 million or 8% due mainly to lower non-interest income driven by decreases in fixed income trading-related revenue and the negative impact of foreign currency translation, partially offset by higher equities trading-related revenue and higher underwriting and advisory fees.

Net interest income

Net interest income of $1,436 million was in line with the prior year. Higher lending margins were offset by lower loan volumes.

Non-interest income

Non-interest income of $3,587 million decreased by $360 million or 9%. Adjusted non-interest income decreased by $462 million or 11%. This decline was due mainly to lower fixed income trading-related revenues, partially offset by higher equities trading-related revenues and higher advisory fees.

Non-interest expense

Non-interest expenses decreased by $15 million or 1% to $2,458 million driven by lower personnel costs and the favourable impact of foreign currency translation, partly offset by increases in technology costs to support business development.

Provision for credit losses

The provision for credit losses was a net reversal of $100 million, a decrease of $490 million from last year. Adjusted provision for credit losses decreased $484 million. The provision for credit losses ratio decreased 45 basis points to negative ten basis points, and adjusted provision for credit losses ratio also decreased 45 basis points.

Provision for credit losses on performing loans was a net reversal of $135 million, a decrease of $392 million. Adjusted provision for credit losses on performing loans decreased $386 million, driven by the more favourable macroeconomic outlook.

Provision for credit losses on impaired loans was $35 million, a decrease of $98 million, due primarily to lower provisions relating to the Energy portfolio. The provision for credit losses ratio on impaired loans was three basis points, a decrease of nine basis points.

Provision for income taxes

The effective tax rate was 22.1% compared to 22.4% the prior year due mainly to changes in earnings mix across jurisdictions.

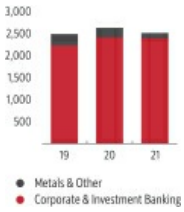
Outlook

Global Banking and Markets expects to continue to deliver earnings growth in 2022 as the business leverages a unique platform centered in the Americas to service and strengthen client relationships. The business is focused on achieving strong revenue and loan growth. Provision for credit losses is expected to remain low. Disciplined expense management remains a priority to deliver positive operating leverage.

C16 Total revenue



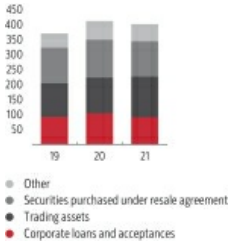
C17 Business banking revenue $ millions



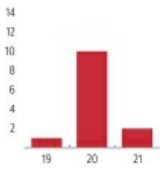
C18 Capital markets revenue by business line $ millions



C19 Composition of average assets $ billions



C20 Trading day losses



Other

The Other segment includes Group Treasury, smaller operating segments, Net gain/loss on divestitures, and corporate items which are not allocated to a business line.

Financial Performance

T25 Other financial performance

($ millions)	2021(1)	2020(1)	2019(2)
Reported results			
Net interest income(3)	**$ 242**	$ (131)	$ (984)
Non-interest income(3)(4)	**91**	392	(146)
Total revenue(3)	**333**	261	(1,130)
Provision for (recovery of) credit losses	**(1)**	1	1
Non-interest expenses	**700**	751	1
Income tax expense(3)	**(362)**	(519)	(586)
Net income (loss)	**$ (4)**	$ 28	$ (546)
Net income attributable to non-controlling interests in subsidiaries	**(10)**	(27)	17
Net income (loss) attributable to equity holders	**$ 6**	$ 55	$ (563)

(1) The amounts for the years ended October 31, 2021 and October 31, 2020 have been prepared in accordance with IFRS 16; prior period amounts have not been restated.
(2) The amounts for the year ended October 31, 2019 have been restated to reflect the impact of the establishment of Global Wealth Management as a separate business segment.
(3) Includes the net residual in matched maturity transfer pricing, and the elimination of the tax-exempt income gross-up reported in net interest income, non-interest income, and provision for income taxes in the business segments, which are reported on a taxable equivalent basis.
(4) Includes net income from investments in associated corporations of $29 in 2021 (2020 – $(70); 2019 – $(178)).

T25A Adjusted Other financial performance(1)

($ millions)	2021	2020	2019
Adjusted results			
Net interest income	**$ 242**	$ (131)	$ (984)
Non-interest income(2)(3)	**91**	93	(19)
Total revenue	**333**	(38)	(1,003)
Provision for credit losses	**(1)**	1	1
Non-interest expenses(3)(4)(5)	**512**	692	(20)
Income before taxes	**(178)**	(731)	(984)
Income tax expense	**(313)**	(475)	(730)
Net income (loss)	**$ 135**	$ (256)	$ (254)
Net income (loss) attributable to non-controlling interests (NCI)	**–**	1	1
Net income (loss) attributable to equity holders	**$ 135**	$ (257)	$ (255)

(1) Refer to Non-GAAP Measures on page 17 for the description of the adjustments.
(2) Includes adjustment for derivatives valuation of $14 in the first quarter of 2020.
(3) Includes adjustment for Net (gain)/loss on divestitures of $(298) for the year ended October 31, 2020.
(4) Includes adjustment for software impairment charge of $44 in the first quarter of 2020.
(5) Includes adjustment for restructuring and other provisions of $188 in the fourth quarter of 2021.

Net income

The Other segment reported net income attributable to equity holders of $6 million in 2021, which includes restructuring and other provisions of $129 million. On an adjusted basis, net income attributable to equity holders was $135 million compared to a loss of $257 million in 2020. The increase of $392 million was due to higher net interest income and lower expenses.

Revenues

Revenue of $333 million increased $72 million from the prior year. On an adjusted basis, revenues increased $371 million due mainly to lower funding costs resulting from lower interest rates and asset/liability management activities.

Non-interest expenses

Non-interest expenses were $700 million, which includes $188 million from restructuring and other provisions this year. On an adjusted basis, non-interest expenses were $512 million compared to $692 million in 2020. The decrease of $180 million is due mainly to metals business charges and higher COVID-19 related costs in the prior year, partially offset by the investment in the SCENE loyalty program in the current year.

Financial Performance of Business Lines: 2020 vs. 2019

Canadian Banking

Canadian Banking reported net income attributable to equity holders of $2,536 million in 2020, a decrease of $952 million or 27% compared to prior year. Adjusted net income was $2,604 million, a decrease of $900 million or 26%. The decline was due primarily to higher provision for credit losses on performing loans, lower non-interest income, and higher non-interest expenses. Return on equity was 15.1% compared to 23.2% in the prior year. Adjusted return on equity was 15.5% compared to 23.3% in the prior year.

International Banking

International Banking reported net income attributable to equity holders of $980 million in 2020, a decrease of $1,785 million or 65%. Adjusted net income attributable to equity holders was $1,148 million in 2020, down $1,805 million or 61%. The negative impact of divested operations was 8%. The remaining decline of 53% was due largely to higher provision for credit losses on performing loans, lower revenues, partially offset by lower expenses and lower income taxes. Return on equity was 5.0% compared to 13.2% last year. Adjusted return on equity was 5.8% compared to 14.1% last year.

Global Wealth Management

Global Wealth Management reported net income attributable to equity holders was $1,252 million, an increase of $86 million or 7%. Adjusted net income attributable to equity holders increased $82 million, also up 7%. The negative impact of divested operations was 1%. The remaining 8% growth was driven by solid AUM growth across our businesses partly offset by higher non-interest expenses, margin compression, and customer relief programs largely impacting our international pensions business. Return on equity was 13.5% compared to 12.7% in the prior year. Adjusted return on equity was 14.0% compared to 13.2% in the prior year.

Global Banking and Markets

Global Banking and Markets reported net income attributable to equity holders of $1,955 million, an increase of $421 million or 27% from the prior year. Adjusted net income was $2,034 million, an increase of $500 million or 33%. Strong performance in capital markets businesses, higher revenue in business banking, and relatively flat expenses, were partly offset by higher provision for credit losses. Return on equity was 14.8% compared to 13.3% last year. Adjusted return on equity was 15.4% compared to 13.3% last year.

Other

The Other segment had a net income attributable to equity holders of $55 million in 2020 compared to a net loss of $563 million in 2019. On an adjusted basis, the Other segment had a net loss attributable to equity holders of $257 million compared to $255 million in 2019 as higher net interest income and non-interest revenues were offset by higher expenses.

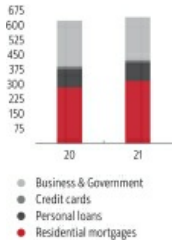
GROUP FINANCIAL CONDITION

T26 Condensed statement of financial position

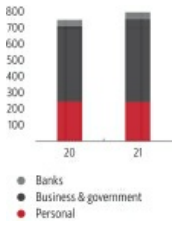
As at October 31 ($ billions)	2021	2020	Change	Volume Change	FX Change
Assets					
Cash, deposits with financial institutions and precious metals	**$ 87.1**	$ 77.6	12%	18%	(6)%
Trading assets	**146.3**	117.8	24	29	(5)
Securities purchased under resale agreements and securities borrowed	**127.7**	119.7	7	12	(5)
Investment securities	**75.2**	111.4	(32)	(28)	(4)
Loans	**637.0**	603.3	6	9	(3)
Other	**111.5**	106.7	4	8	(4)
Total assets	**$ 1,184.8**	$ 1,136.5	4%	8%	(4)%
Liabilities					
Deposits	**$ 797.3**	$ 750.8	6%	10%	(4)%
Obligations related to securities sold under repurchase agreements and securities lent	**123.5**	137.8	(10)	(5)	(5)
Other liabilities	**184.8**	170.0	9	13	(4)
Subordinated debentures	**6.3**	7.4	(15)	(14)	(1)
Total liabilities	**$ 1,111.9**	$ 1,066.0	4%	8%	(4)%
Equity					
Common equity(1)	**64.8**	62.8	3%	9%	(6)%
Preferred shares and other equity instruments	**6.0**	5.3	13	13	-
Non-controlling interests in subsidiaries	**2.1**	2.4	(13)	(13)	-
Total equity	**$ 72.9**	$ 70.5	3%	8%	(5)%
Total liabilities and shareholders' equity	**$ 1,184.8**	$ 1,136.5	4%	8%	(4)%

(1) Includes net impact of foreign currency translation, primarily change in spot rates on the transalation of assets and liabiltes from functional currency to Canandian dollar equivalent.

C21 Loan portfolio loans & acceptances, $ billions, as at October 31



C22 Deposits $ billions, as at October 31



Statement of Financial Position

Assets

The Bank's total assets as at October 31, 2021 were $1,185 billion, up $48 billion or 4% from October 31, 2020. This includes the negative impact of foreign currency translation of $42 billion. Cash and deposits with financial institutions were up $10 billion due primarily to higher balances with the U.S. Federal Reserve. Trading securities increased $29 billion due to higher trading and client activity. Investment securities decreased $36 billion primarily to lower holdings of Canadian federal, provincial and U.S. government debt in the liquidity portfolio. Loans increased $34 billion, which includes the negative impact of foreign currency translation of $17 billion. Residential mortgages increased $35 billion primarily in Canada. Business and Government loans increased $1 billion, which includes the negative impact of foreign currency translation of $12 billion. This was partially offset by lower personal loans and credit cards of $5 billion from decreased customer activity. Securities purchased under resale agreements and securities borrowed increased $8 billion due to higher client demand. Customers' liability under acceptances increased $6 billion.

Liabilities

Total liabilities were $1,112 billion as at October 31, 2021, up $46 billion or 4% from October 31, 2020. This includes the negative impact of foreign currency translation of $39 billion. Total deposits increased $46 billion. Personal deposits of $244 billion decreased $3 billion as underlying growth of $1 billion was more than offset by foreign currency translation. Business and government deposits grew by $47 billion with underlying growth of $66 billion partially offset by foreign currency translation. Deposits by Financial Institutions increased $2 billion. Obligations related to securities sold under repurchase agreements and securities lent decreased by $14 billion due mainly to lower funding through this product. Obligations related to securities sold short increased by $9 billion due mainly to higher trading and client activity. Acceptances increased $6 billion due mainly to higher customer demand. Other liabilities decreased $4 billion due primarily to the revaluation of the Bank's employee benefit plans and lower collateral requirements.

Equity

Total shareholders' equity increased $2,389 million from October 31, 2020. Current year earnings of $9,955 million, the revaluation of the Bank's employee benefit plans of $1,335 million and net issuance of preferred shares and other equity instruments of $744 million were partially off-set by dividends paid of $4,604 million, a decrease of $3,520 million in the cumulative foreign currency translation amount, net increase in losses on derivative instruments designated as cash flow hedges of $806 million, net decrease of $349 million in other components of accumulated other comprehensive income and a decrease in non-controlling interests in subsidiaries of $288 million due mainly to the Bank's increased ownership in Scotiabank Chile.

Capital Management

Overview

Scotiabank is committed to maintaining a strong capital base to support the risks associated with its diversified businesses. Strong capital levels contribute to financial safety for the Bank's customers, foster investor confidence and support strong credit ratings. It also allows the Bank to take advantage of growth opportunities as they arise and enhance shareholder returns through increased dividends. The Bank's capital management framework includes a comprehensive internal capital adequacy assessment process (ICAAP), aimed at ensuring that the Bank's capital is adequate

to meet current and future risks and achieve its strategic objectives. Key components of the Bank's ICAAP include sound corporate governance; creating a comprehensive risk appetite for the Bank; managing and monitoring capital, both currently and prospectively; and utilizing appropriate financial metrics which relate risk to capital, including internal capital and regulatory capital measures.

Governance and oversight

The Bank has a sound capital management framework to measure, deploy and monitor its available capital and assess its adequacy. Capital is managed in accordance with the Board-approved Capital Management Policy. In addition, the Board reviews and approves the Bank's annual capital plan. The Asset-Liability Committee and senior executive management provide governance over the capital management process. The Bank's Finance, Treasury and Global Risk Management groups take a coordinated approach to implementing the Bank's capital plan.

Risk appetite

The risk appetite framework that establishes enterprise-wide risk tolerances in addition to capital targets are detailed in the Risk Management section "Risk Appetite". The framework encompasses medium-term targets with respect to regulatory capital thresholds, earnings and other risk-based parameters. These targets drive behaviour to ensure the Bank achieves the following overall objectives: exceed regulatory and internal capital targets, manage capital levels commensurate with the risk profile of the Bank, maintain strong credit ratings and provide the Bank's shareholders with acceptable returns.

Regulatory capital

Canadian banks are subject to the revised capital adequacy requirements as published by the Basel Committee on Banking Supervision (BCBS) and commonly referred to as Basel III. Under Basel III, there are three primary risk-based regulatory capital ratios used to assess capital adequacy: Common Equity Tier 1 (CET1), Tier 1 and Total capital, which are determined by dividing those capital components by risk-weighted assets. Basel III also provides guidance on non-viability contingent capital (NVCC). The guidance stipulates that in order to qualify as regulatory capital, non-common share capital instruments must be convertible into common equity upon a trigger event as defined within the guidance. All non-common share capital instruments issued after December 31, 2012, are required to meet these NVCC requirements to qualify as regulatory capital.

The Office of the Superintendent of Financial Institutions, Canada (OSFI) has issued guidelines, reporting requirements and disclosure guidance which are consistent with the international implementation of Basel III. OSFI requires Canadian deposit-taking institutions to meet minimum requirements related to risk-weighted assets of 7%, 8.5% and 10.5% for CET1, Tier 1 and Total Capital ratios, respectively, which includes the capital conservation buffer of 2.5%. OSFI has also designated the Bank a domestic systemically important bank (D-SIB), increasing its minimum capital ratio requirements by 1% across all tiers of capital, in line with the requirements for global systemically important banks. OSFI's minimum Pillar 1 capital ratio requirements, including the D-SIB 1% surcharge, are 8.0%, 9.5% and 11.5% for Common Equity Tier 1, Tier 1 and Total capital ratios, respectively.

In addition to risk-based capital requirements, Basel III introduced a simpler, non risk-based Leverage ratio requirement to act as a supplementary measure to its risk-based capital requirements. The Leverage ratio is defined as a ratio of Basel III Tier 1 capital to a leverage exposure measure which includes on-balance sheet assets and off-balance sheet commitments, derivatives and securities financing transactions, as defined within the requirements. OSFI's Basel III Leverage Ratio Requirements Guideline and Public Disclosure Requirements outline the application and disclosure of the Basel III Leverage ratio in Canada. Institutions are expected to maintain an operating buffer above the 3% minimum.

Domestic Stability Buffer

In June 2018, OSFI implemented the Domestic Stability Buffer, to be held by Domestic Systemically Important Banks (D-SIBs) as a Pillar 2 buffer, in addition to the capital conservation buffer requirement of 2.5% and the D-SIB surcharge of 1.0%. Breaches of this buffer will not result in banks being subject to automatic constraints on capital distributions. Instead, OSFI will require a remediation plan to address any shortfall to their minimum. Supervisory interventions pursuant to OSFI's Guide to Intervention would occur in cases where a remediation plan is not produced or executed in a timely manner satisfactory to OSFI.

The Domestic Stability Buffer ranges between 0 and 2.5% of a bank's total risk-weighted assets (RWA). OSFI undertakes a review of the buffer on a semi-annual basis, in June and December, and any changes to the buffer are made public, along with supporting rationale. In exceptional circumstances, OSFI may make and announce adjustments to the buffer in-between scheduled review dates.

In June 2021, OSFI announced a 150 basis point increase to its Domestic Stability Buffer to 2.5% of total risk-weighted assets, effective October 31, 2021. Consequently, OSFI's minimum regulatory capital ratio requirements, including the D-SIB 1.0% surcharge and its Domestic Stability Buffer are: 10.5%, 12.0% and 14.0% for Common Equity Tier 1, Tier 1 and Total capital ratios, respectively.

Total Loss Absorbing Capacity (TLAC)

OSFI has issued its guideline on Total Loss Absorbing Capacity (TLAC), which applies to Canada's D-SIBs as part of the Federal Government's bail-in regime. The standards are intended to address the sufficiency of a systemically important bank's loss absorbing capacity to support its recapitalization in the event of its failure. Effective November 1, 2021, D-SIBs are required to maintain a minimum risk-based TLAC ratio and a minimum TLAC leverage ratio. TLAC is defined as the aggregate of Tier 1 capital, Tier 2 capital, and other TLAC instruments that are subject to conversion in whole or in part into common shares under the CDIC Act and meet all of the eligibility criteria under the guidelines. The Bank's minimum TLAC ratio requirements consist of 24.0% of risk-weighted assets (including the Domestic Stability Buffer requirement) and 6.75% of leverage ratio exposures. OSFI may subsequently vary the minimum TLAC requirements for individual D-SIBs or groups of D-SIBs. Where a D-SIB falls below the minimum TLAC requirements, OSFI may take any measures deemed appropriate, including measures set out in the Bank Act. As at October 31, 2021, the Bank exceeds the OSFI minimum TLAC and TLAC leverage ratios.

Regulatory capital developments

In the second quarter of 2020, in response to COVID-19, OSFI introduced changes to regulations to keep the financial system resilient and well capitalized. A suite of temporary adjustments to existing capital and leverage requirements were introduced which include the following:

- Preferential treatment of performing loans granted payment deferrals; these were classified as performing loans under OSFI's Capital Adequacy Requirements (CAR) guideline. This temporary capital treatment remained in place for the duration of the payment deferral, up to a maximum of 6 months (or 3 months if the deferral was granted after August 30, 2020 and before September 30, 2020). Loans granted payment deferrals after September 30, 2020 were not eligible for this temporary capital relief.

- New transitional arrangements for the regulatory capital treatment of expected credit loss provisioning that are available under the Basel Framework, enabling a portion of the allowance that would otherwise be included in Tier 2 capital to instead be included in CET1 capital. The adjustment is measured quarterly as the increase in Stage 1 and Stage 2 allowances relative to their baseline level as at January 31, 2020, tax effected and subject to a scaling factor of 70% in 2020, 50% in 2021, and 25% in 2022.
- Reduction of an institution's Stressed Value-at-Risk (VaR) multipliers used in the calculation of market risk capital by a factor of 2 and the removal of Funding Valuation Adjustment (FVA) hedges in the calculation of market risk capital, both changes were made effective from the commencement of the second quarter of 2020. Effective May 1, 2021, the temporary reduction in the Stressed Value at Risk (SVaR) multiplier was returned to pre-pandemic levels.
- For institutions using the Internal Ratings-Based (IRB) approach for credit risk, a lowering of OSFI's regulatory capital floor factor from 75% to 70%, effective from the second quarter of 2020. The 70% factor is expected to remain in place until OSFI's domestic implementation of the revised Basel III reforms.
- For the Leverage ratio, central bank reserves and sovereign-issued securities that qualify as High Quality Liquid Assets (HQLA) under the Liquidity Adequacy Requirements guideline are to be temporarily excluded from the Leverage ratio exposure measure until December 31, 2021. During the year OSFI announced that temporary exclusion of sovereign-issued securities from the Leverage ratio exposure measure will not be extended beyond December 31, 2021; however, OSFI had confirmed that central bank reserves will continue to be excluded from the Leverage ratio exposure measure going forward. As at October 31, 2021, the Bank's Leverage ratio included a benefit of approximately 20 basis points from the exclusion of sovereign-issued securities from its exposure measure.

The Bank adopted the above changes in line with OSFI's expectations and continues to apply them in our regulatory capital and leverage ratio calculations as at October 31, 2021.

In March 2021, OSFI published an update to its July 2020 capital ruling on Limited Recourse Capital Notes (LRCN). The July 2020 capital ruling assessed LRCNs relative to the eligibility criteria set out in the Capital Adequacy Requirements (CAR) guideline, and provided that the LRCNs qualify as Additional Tier 1 regulatory capital, subject to certain limitations and disclosure requirements. The 2021 revisions provide further clarification on the conditions and limitations on LRCNs.

In addition, we continue to monitor and prepare for new regulatory capital developments.

Other Regulatory capital developments

Basel Committee on Banking Supervision – Finalized Basel III Regulatory Capital Reforms
In December 2017, the Group of Governors and Heads of Supervision (GHOS), the oversight body of the Basel Committee on Banking Supervision (BCBS), announced that they have agreed on the remaining Basel III reforms. The previously expected implementation year of 2022 was delayed to 2023.

The final Basel III reforms package includes:

- a revised standardized approach for credit risk;
- revisions to the internal ratings-based approach for credit risk;
- revisions to the credit valuation adjustment (CVA) framework, including the removal of the internally modelled approach and the introduction of a revised standardized approach;
- a revised standardized approach for operational risk, which will replace the existing standardized approaches and the advanced measurement approach;
- revisions to the measurement of the leverage ratio and a leverage ratio buffer of 50% of a global systemically important banks' (G-SIBs) risk-weighted capital buffer for global systemically important banks; and,
- an aggregate output floor, which will ensure that banks' risk-weighted assets (RWAs) generated by internal models are no lower than 72.5% of RWAs as calculated by the Basel III framework's standardized approaches. Banks will also be required to disclose their RWAs based on these standardized approaches. There is a phase-in period for the 72.5% output floor from 2023 until 2028.

In March 2021, OSFI released proposed revisions to its Capital Adequacy Requirements Guideline and its Leverage Requirements Guideline, for public consultation until June 4, 2021. OSFI's requirements are substantially aligned with revised Basel III with some differences, primarily in retail and with respect to an acceleration of the phase-in period of the aggregate output floor to 72.5% by 2026. Based on the latest OSFI announced implementation timelines, revised Basel III requirements are effective Q2 2023, with the exception of CVA and FRTB market risk requirements which are effective Q1 2024. OSFI has also proposed revisions to its Pillar 3 disclosure requirements for implementation in 2023.

The Bank will continue to monitor and prepare for developments impacting regulatory capital requirements.

Planning, managing and monitoring capital

Capital is managed and monitored based on planned changes in the Bank's strategy, identified changes in its operating environment or changes in its risk profile. As part of the Bank's comprehensive ICAAP, sources and uses of capital are measured and monitored on an ongoing basis through financial metrics, including regulatory thresholds, and internal capital. These results are used in capital planning and strategic decision-making.

The Bank's assessment of capital adequacy is in the context of its current position and its expected future risk profile and position relative to its internal targets while considering the potential impact of various stress scenarios. Specific scenarios are selected based on the current economic conditions and business events facing the Bank. In addition, the Bank's forward looking capital adequacy assessment includes a consideration of the results of more severe multi-risk scenarios within its enterprise-wide stress testing. This testing is used to determine the extent to which severe, but plausible events, impact the Bank's capital.

The Bank sets internal regulatory capital targets to ensure the Bank's available capital is sufficient within the context of its risk appetite.

The Bank's internal target includes an adequate buffer over the regulatory minimum ensuring sufficient flexibility for future capital deployment and in consideration of the Bank's risk appetite, the volatility of planning assumptions, the results from stress testing and contingency planning.

The Bank has a comprehensive risk management framework to ensure that the risks taken while conducting its business activities are consistent with its risk appetite, its impact on capital relative to internal targets, and that there is an appropriate balance between risk and return. Refer to the Risk Management section for further discussion on the Bank's risk management framework. In managing the Bank's capital base, close attention is paid to the cost and availability of the various types of capital, desired leverage, changes in the assets and risk-weighted assets, and the

opportunities to profitably deploy capital. The amount of capital required for the business risks being assumed, and to meet regulatory requirements, is balanced against the goal of generating an appropriate return for the Bank's shareholders.

Capital generation

Capital is generated internally through net earnings after dividend payments. As well, capital is generated by the issuance of common shares, preferred shares and other equity instruments, and subordinated debentures, net of redemptions.

Capital deployment

The Bank deploys capital to support sustainable, long-term revenue and net income growth. The growth can be through existing businesses by attracting new customers, increasing cross-selling activities to existing customers, adding new products and enhancing sales productivity, or through acquisitions. All major initiatives to deploy capital are subject to rigorous analysis, validation of business case assumptions and evaluation of expected benefits. Key financial criteria include impact on earnings per share, capital ratios, return on invested capital, expected payback period and internal rate of return based on discounted cash flows.

Regulatory capital ratios

The Bank continues to maintain strong, high quality capital levels which position it well for future business growth and strategic initiatives. The CET1 ratio as at October 31, 2021 was 12.3%, an increase of approximately 50 basis points from the prior year due primarily to strong internal capital generation and the impact from the remeasurement of the employee pension and post-retirement obligations, partly offset by growth in risk-weighted assets, primarily retail mortgages, personal and business lending, a lower CET1 inclusion from declines in Stage 1 and Stage 2 expected credit losses (ECL), OSFI's reversal of its temporary reduction in the SVaR multiplier, and the impact from foreign currency translation on capital requirements. At year end, the CET1 ratio included a benefit of six basis points (October 31, 2020 – 30 basis points) from OSFI transitional adjustment for the partial inclusion of increases in Stage 1 and Stage 2 expected credit losses (ECL) relative to their pre-crisis baseline levels as at January 31, 2020.

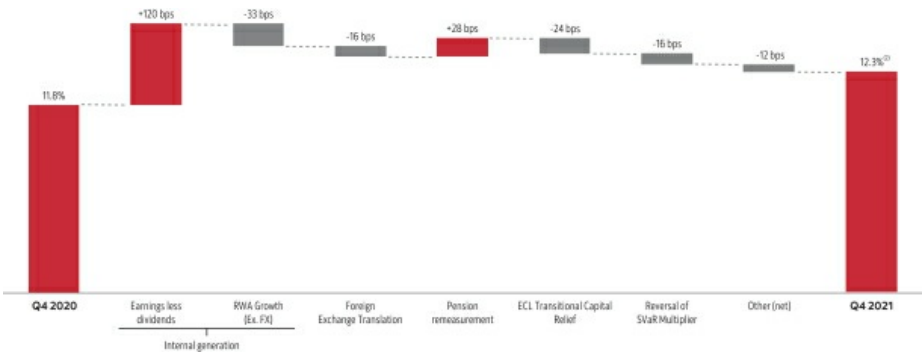
The Bank's Tier 1 capital ratio was 13.9% as at October 31, 2021, an increase of approximately 60 basis points from the prior year, due primarily to the issuance of $1.25 billion and USD $600 million of Tier 1 qualifying Limited Recourse Capital Notes (LRCN), and the above noted impacts to the CET1 capital ratio, partly offset by the redemptions of $850 million of Basel III compliant NVCC preferred shares, a redemption of $409 million of non-qualifying preferred shares, and other regulatory adjustments.

The Total capital ratio was 15.9% as at October 31, 2021, an increase of approximately 40 basis points from 2020, due primarily to the above noted changes to the Tier 1 capital ratio, partly offset by the redemption of $750 million of subordinated debentures and other regulatory adjustments to Tier 2 capital.

The Leverage ratio was 4.8%, an increase of approximately 10 basis points in 2021 as higher Tier 1 capital was partly offset by growth in the Bank's on and off-balance sheet assets.

The Bank's capital ratios continue to be well in excess of OSFI's minimum capital ratio requirements for 2021 of 10.5%, 12.0% and 14.0% for CET1, Tier 1 and Total Capital, respectively. The Bank was well above the OSFI minimum Leverage ratio as at October 31, 2021.

C23 Continuity of Common Equity Tier 1 ratio(1)



(1) This measure has been disclosed in this document in accordance with OSFI Guideline - Capital Adequacy Requirements (November 2018).
(2) Includes ~ 6 bps benefit from OSFI's partial inclusion of stage 1 and 2 allowances

T27 Regulatory capital(1)

As at October 31 ($ millions)	Basel III 2021	Basel III 2020
Common Equity Tier 1 capital		
Total Common Equity(2)	**$ 64,606**	$ 62,502
Qualifying non-controlling interest in common equity of subsidiaries	**1,322**	1,769
ECL transitional adjustment(3)	**235**	1,304
Goodwill and intangibles, net of deferred tax liabilities (4)	**(15,156)**	(15,505)
Threshold related deductions	**–**	–
Net deferred tax assets (excluding those arising from temporary differences)	**(174)**	(226)
Other Common Equity Tier 1 capital deductions (5)	**177**	(679)
Common Equity Tier 1	**51,010**	49,165
Preferred shares(6)	**800**	2,059
Subordinated additional Tier 1 capital notes (NVCC)	**3,249**	3,249
Limited recourse capital notes (NVCC)	**2,003**	–
Capital instrument liabilities – trust securities (6)	**653**	750
Other Tier 1 capital adjustments (7)	**200**	139
Net Tier 1 capital	**57,915**	55,362
Tier 2 capital		
Subordinated debentures, net of amortization (6)	**5,923**	7,355
Allowance for credit losses eligible for inclusion in Tier 2 and excess allowance (re: IRB approach) (8)	**2,106**	1,647
Qualifying non-controlling interest in Tier 2 capital of subsidiaries	**157**	148
Other Tier 2 capital adjustments	**–**	–
Tier 2 capital	**8,186**	9,150
Total regulatory capital	**66,101**	64,512
Risk-weighted assets ($ billions)(1)		
Credit risk	**358.8**	362.0
Market risk	**8.1**	7.3
Operational risk	**49.2**	47.8
Risk-weighted assets(9)	**$ 416.1**	$ 417.1
Capital ratios(1)		
Common Equity Tier 1	**12.3%**	11.8%
Tier 1	**13.9%**	13.3%
Total	**15.9%**	15.5%
Leverage(10)		
Leverage exposures	**$ 1,201,766**	$ 1,170,290
Leverage ratio	**4.8%**	4.7%

(1) Regulatory capital ratios are determined in accordance with OSFI Guideline – Capital Adequacy Requirements (November 2018).
(2) Includes Other Reserves adjusted for regulatory capital purposes.
(3) The ECL transitional adjustment was introduced by OSFI in Q2, 2020.
(4) Reported amounts are based on OSFI's requirements that goodwill relating to investments in associates be classified as goodwill for regulatory reporting purposes.
(5) Other CET1 capital deductions under Basel III include gains/losses due to changes in own credit risk on fair valued liabilities, pension plan assets and other items.
(6) Non-qualifying Tier 1 and Tier 2 capital instruments are subject to a phase-out period of 10 years.
(7) Other Tier 1 capital adjustments under Basel III rules include eligible non-controlling interests in subsidiaries.
(8) Eligible allowances for 2021 and 2020.
(9) OSFI has prescribed a minimum capital floor for institutions that use the advanced internal ratings-based approach for credit risk. The Basel II capital floor add-on is determined by comparing a capital requirement under the Basel II standardized approach for credit risk, in addition to OSFI prescribed requirements for market risk and credit valuation adjustment RWA. A shortfall in the Basel III capital requirement as compared with the Basel II capital floor is added to RWA. Under this Basel II regulatory capital floor requirement, the Bank does not have a capital floor add-on as at October 31, 2021 (October 31, 2020 – nil).
(10) This measure has been disclosed in this document in accordance with OSFI Guideline – Leverage Requirements (November 2018).

T28 Changes in regulatory capital

	Basel III	
For the fiscal years ($ millions)	**2021**	2020
Total capital, beginning of year	**$ 64,512**	$ 59,850
Changes in Common Equity Tier 1		
Net income attributable to common equity holders of the Bank	**9,391**	6,582
Dividends paid to equity holders of the bank	**(4,371)**	(4,363)
Shares issued	**268**	59
Shares repurchased/redeemed	**–**	(414)
Gains/losses due to changes in own credit risk on fair valued liabilities	**222**	347
ECL transitional adjustment(1)	**(1,069)**	1,304
Movements in accumulated other comprehensive income, excluding cash flow hedges	**(2,356)**	(2,684)
Change in non-controlling interest in common equity of subsidiaries	**(447)**	35
Change in goodwill and other intangible assets (net of related tax liability) (2)	**349**	639
Other changes including regulatory adjustments below:	**(142)**	1,082
– Deferred tax assets that rely on future profitability (excluding those arising from temporary differences)	**52**	60
– Significant investments in the common equity of other financial institutions (amount above 10% threshold)	**–**	907
– Other capital deductions	**(220)**	102
– Other	**26**	13
Changes in Common Equity Tier 1	**$ 1,845**	$ 2,587
Changes in Additional Tier 1 Capital		
Issued	**2,003**	1,689
Redeemed	**(1,259)**	(265)
Other changes including regulatory adjustments and phase-out of non-qualifying instruments	**(36)**	47
Changes in Additional Tier 1 Capital	**$ 708**	$ 1,471
Changes in Tier 2 Capital		
Issued	**–**	–
Redeemed	**(750)**	(9)
Allowance for credit losses eligible for inclusion in Tier 2 and Excess Allowance under AIRB (3)	**459**	446
Other changes including regulatory adjustments and phase-out of non-qualifying instruments	**(673)**	167
Changes in Tier 2 Capital	**$ (964)**	$ 604
Total capital generated (used)	**$ 1,589**	$ 4,662
Total capital, end of year	**$ 66,101**	$ 64,512

(1) The ECL transitional adjustment was introduced by OSFI in Q2, 2020.
(2) Reported amounts are based on OSFI's requirements that goodwill relating to investments in associates be classified as goodwill for regulatory reporting purposes.
(3) Eligible allowances for 2021 and 2020.

Regulatory capital components

The Bank's regulatory capital is divided into three components – CET1, Additional Tier 1 capital and Tier 2 capital, depending on their degree of permanency and loss absorbency. All components of capital provide support for banking operations and protect depositors.

CET1 consists primarily of common shareholders' equity, regulatory derived non-controlling interest capital, and prescribed regulatory adjustments or deductions. These regulatory deductions include goodwill, intangible assets (net of deferred tax liabilities), deferred tax assets that rely on future profitability, defined-benefit pension assets, shortfall (if any) of the allowance for credit losses to regulatory parameter-based expected losses and significant investments in the common equity of other financial institutions.

Additional Tier 1 capital consists primarily of qualifying non-cumulative preferred shares, qualifying other equity instruments (as described in Note 24), and non-qualifying preferred shares and innovative Tier 1 instruments subject to phase-out. Tier 2 capital consists mainly of qualifying subordinated debentures, or non-qualifying subordinated debentures subject to phase-out, and any eligible allowances for credit losses.

The Bank's CET1 capital was $51.0 billion as at October 31, 2021, an increase of $1.8 billion from the prior year primarily due to:

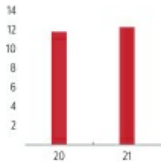
- $5.0 billion growth from internal capital generation, net of dividends paid;
- $0.4 billion from lower regulatory capital deductions, including goodwill and gains/losses in own credit risk on fair valued liabilities; and,
- $0.3 billion of share issuances through the stock option and employee share ownership programs.

Partly offset by:

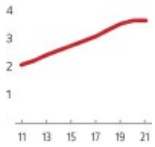
- $2.4 billion decrease from movements in Accumulated Other Comprehensive Income, excluding cash flow hedges, primarily from the impact of foreign currency translation net of changes in employee pensions and benefits plans obligations;
- $1.1 billion from the reduction in OSFI's transitional adjustment for the partial inclusion of increases in Stage 1 and Stage 2 expected credit losses; and,
- $0.4 billion of lower non-controlling interest regulatory capital.

The Bank's Tier 1 capital increased by $2.6 billion, primarily due to the above impacts to CET1 capital and the issuance of $1.25 billion and USD $600 million of Tier 1 qualifying Limited Recourse Capital Notes (LRCN), partly offset by the redemptions of $350 million and $500 million of Basel III compliant NVCC preferred shares, a redemption of $409 million of non-qualifying preferred shares, and other regulatory adjustments.
Total capital increased by $1.6 billion, mainly due to the impacts to CET1 and Tier 1 capital and growth in eligible allowances included in Tier 2 capital, partly offset by the redemption of $750 million of subordinated debentures and other regulatory adjustments to Tier 2 capital.

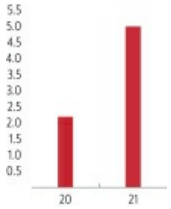
C24 CET1 capital %, as at October 31



C25 Dividend growth dollars per share



C26 Internally generated capital $ billions, for years ended October 31



Dividends

The annual dividend in 2021 was $3.60, same as in 2020. The Board of Directors approved a quarterly dividend of $1.00 per common share, a 10 cent increase, at its meeting on November 29, 2021. This quarterly dividend applies to shareholders of record at the close of business on January 4, 2022, and is payable January 27, 2022.

T29 Selected capital management activity

For the fiscal years ($ millions)	2021	2020
Dividends		
Common	**$ 4,371**	$ 4,363
Preferred and other equity instruments	**233**	196
Common shares issued(1)	**268**	59
Common shares repurchased for cancellation under the Normal Course Issuer Bid(2)	**–**	414
Preferred shares and other equity instruments issued(3)	**2,003**	1,689
Preferred shares and other equity instruments redeemed(4)	**1,259**	265
Maturity, redemption and repurchase of subordinated debentures	**750**	9

(1) Represents primarily cash received for stock options exercised during the year, common shares issued in connection with acquisitions, and common shares issued pursuant to the Dividend and Share Purchase Plan.
(2) Represents reduction to Common shares and Retained earnings (refer to the Consolidated Statement of Changes in Equity).
(3) Represents the issuances of $1.25 billion 3.70% fixed rate resetting Limited Recourse Capital Notes (LRCN) Series 1 on June 15, 2021 and US$600 million 3.625% fixed rate resetting Limited Recourse Capital Notes (LRCN) Series 2 on October 7, 2021.
(4) Represents the redemptions of Preferred Shares Series 32 & 33 on February 2, 2021, Series 34 on April 26, 2021, and Series 36 on July 26, 2021.

Normal Course Issuer Bid

During the year ended October 31, 2020, the Bank repurchased and cancelled approximately 5.6 million common shares at a volume weighted average price of $73.95 per share for a total amount of $414 million.

On March 13, 2020, OSFI advised federally regulated deposit taking institutions to suspend common share buybacks as part of COVID-19 measures. As at October 31, 2021, the Bank does not have an active normal course issuer bid and did not repurchase any common shares during the twelve months then ended. On November 4, 2021, OSFI removed the COVID-19 related restrictions and advised that subject to approval, repurchase of common shares can resume.

On November 30, 2021, the Bank announced that OSFI and the Toronto Stock Exchange (TSX) approved a normal course issuer bid (the "2021 NCIB") pursuant to which it may repurchase for cancellation up to 24 million of the Bank's common shares. Purchases under the 2021 NCIB may commence on December 2, 2021 and terminate upon earlier of: (i) the Bank purchasing the maximum number of common shares under the 2021 NCIB, (ii) the Bank providing a notice of termination, or (iii) December 1, 2022. On a quarterly basis, the Bank will notify OSFI prior to making purchases.

Share data and other capital instruments

The Bank's common and preferred share data, as well as other capital instruments, are shown in T30. Further details, including exchangeability features, are discussed in Note 21 and Note 24 of the consolidated financial statements.

T30 Shares and other instruments

As at October 31, 2021	Amount ($ millions)	Dividends declared per share(1)	Number outstanding (000s)	Conversion features
Common shares(2)	$ 18,507	$ 3.60	1,215,338	n/a
Preferred shares				
Preferred shares Series 32(3)	–	0.138829	–	–
Preferred shares Series 33(3)	–	0.100614	–	–
Preferred shares Series 34(4)	–	0.687500	–	–
Preferred shares Series 36(5)	–	1.031250	–	–
Preferred shares Series 38(6)(7)(8)	500	1.212500	20,000	Series 39
Preferred shares Series 40(6)(7)(9)	300	1.212500	12,000	Series 41

Additional Tier 1 securities	Amount ($ millions)	Distribution(10)	Yield (%)	Number outstanding (000s)
Scotiabank Trust Securities – Series 2006-1 issued by Scotiabank Capital Trust (11a,b)	$ 750	28.25	5.650	750
Subordinated additional Tier 1 capital notes (NVCC) (12)	US$ 1,250	US$ 23.25	4.650	1,250
Subordinated additional Tier 1 capital notes (NVCC) (13)	US$ 1,250	US$ 12.25	4.900	1,250
Limited Recourse Capital Notes Series 1 (NVCC) (13)(14)	$ 1,250	9.25	3.700	1,250
Limited Recourse Capital Notes Series 2 (NVCC) (13)(15)	US$ 600	US$ 9.0625	3.625	600

NVCC subordinated debentures	Amount ($ millions)	Interest Rate (%)
Subordinated debentures due March 2027	$ 1,250	2.58
Subordinated debentures due December 2025	US$ 1,250	4.50
Subordinated debentures due January 2029	1,750	3.89
Subordinated debentures due July 2029	1,500	2.84

Options	Number outstanding (000s)
Outstanding options granted under the Stock Option Plans to purchase common shares (2)	10,459

(1) Dividends declared from November 1, 2020 to October 31, 2021.
(2) Dividends on common shares are paid quarterly, if and when declared. As at November 19, 2021, the number of outstanding common shares and options was 1,215,617 thousand and 10,133 thousand, respectively.
(3) On February 2, 2021, the Bank redeemed all outstanding Non-cumulative Preferred Shares Series 32 and Series 33 at a price equal to $25.00 per share plus dividends declared on January 26, 2021 of $0.009891 per Series 32 share and $0.006976 per Series 33 share.
(4) On April 26, 2021, the Bank redeemed all outstanding Non-cumulative Preferred Shares Series 34 at a price equal to $25.00 per share plus dividends declared on February 23, 2021 of $0.343750 per Series 34 share.
(5) On July 26, 2021, the Bank redeemed all outstanding Non-cumulative Preferred Shares Series 36 at a price equal to $25.00 per share plus dividends declared on June 1, 2021 of $0.343750 per Series 36 share.
(6) These shares are entitled to non-cumulative preferential cash dividends payable quarterly. These preferred shares have conversion features. Refer to Note 24 of the consolidated financial statements in the Bank's 2021 Annual Report for further details.
(7) These preferred shares contain Non-Viability Contingent Capital (NVCC) provisions necessary to qualify as Tier 1 regulatory capital under Basel III. Refer to Note 24 of the consolidated financial statements in the Bank's 2021 Annual Report for further details.
(8) Subsequent to the initial five-year fixed rate period ending on January 26, 2022, and resetting every five years thereafter, the dividends, if and when declared, will be determined by the sum of the five-year Government of Canada Yield plus 4.19%, multiplied by $25.00.
(9) Subsequent to the initial five-year fixed rate period ending on January 26, 2024, and resetting every five years thereafter, the dividends, if and when declared, will be determined by the sum of the five-year Government of Canada Yield plus 2.43%, multiplied by $25.00.
(10) Distributions made per face amount of $1,000 or US$1,000 semi-annually or quarterly, as applicable.
(11)(a) On September 28, 2006, Scotiabank Capital Trust issued 750,000 Scotiabank Trust Securities – Series 2006-1 (Scotia BaTS II Series 2006-1). The holders of Scotia BaTS II Series 2006-1 are entitled to receive non-cumulative fixed cash distributions payable semi-annually in an amount of $28.25 per security. With regulatory approval, these securities may be redeemed in whole upon the occurrence of certain tax or regulatory capital changes, or in whole or in part on December 30, 2011 and on any distribution date thereafter at the option of Scotiabank Capital Trust. The holder has the right at any time to exchange their security into Non-cumulative Preferred Shares Series S of the Bank. The Series S shares will be entitled to cash dividends payable semi-annually in an amount of $0.4875 per $25.00 share. Refer to Note 24(c) – Restrictions on payment of dividends and retirement of shares. The Scotia BaTS II Series 2006-1 may be automatically exchanged, without the consent of the holder, into Non-cumulative Preferred Shares Series T of the Bank in the following circumstances: (i) proceedings are commenced for the winding-up of the Bank; (ii) the Superintendent takes control of the Bank or its assets; (iii) the Bank has a Tier 1 Capital ratio of less than 5% or a Total Capital ratio of less than 8%; or (iv) the Superintendent has directed the Bank to increase its capital or provide additional liquidity and the Bank elects such automatic exchange or the Bank fails to comply with such direction. The Series T shares will be entitled to non-cumulative cash dividends payable semi-annually in an amount of $0.625 per $25.00 share. If there is an automatic exchange of the Scotia BaTS II Series 2006-1 into Preferred Shares Series T of the Bank, then the Bank would become the sole beneficiary of the Trust.
(11)(b) No cash distributions will be payable on the Scotia BaTS II Series 2006-1 in the event that the regular dividend is not declared on the Bank's preferred shares and, if no preferred shares are outstanding, the Bank's common shares. In such a circumstance the net distributable funds of the Trust will be payable to the Bank as the holder of the residual interest in the Trust. Should the Trust fail to pay the semi-annual distributions on the Scotia BaTS II Series 2006-1 in full, the Bank will not declare dividends, of any kind on any of its preferred or common shares for a specified period of time. Refer to Note 24(c) - Restrictions on payment of dividends and retirement of shares.
(12) Semi-annual distributions are recorded if and when paid.
(13) Quarterly distributions are recorded in each fiscal quarter if and when paid.
(14) On June 15, 2021, the Bank issued $1,250 million 3.70% Fixed Rate Resetting Limited Recourse Capital Notes Series 1 (NVCC) ("LRCN Series 1"). In connection with the issuance of LRCN Series 1, the Bank issued $1,250 million of 3.70% Fixed Rate Resetting Perpetual Subordinated Additional Tier 1 Capital Notes (NVCC) ("the Series 1 AT1 Notes") at a price of $1,000 per Series 1 AT1 Note, to Scotiabank LRCN Trust, a consolidated entity, to be held as trust assets in connection with the LRCN structure. For more details, refer to Note 24(b) - Preferred shares and other equity instruments. On October 27, 2021, distributions of $13.51 per $1,000.00 per face value of LRCN Series 1 were paid for the first long period from and including June 15, 2021 to, but excluding, October 27, 2021.
(15) On October 7, 2021, the Bank issued US$600 million 3.625% Fixed Rate Resetting Limited Recourse Capital Notes Series 2 (NVCC) ("LRCN Series 2"). In connection with the issuance of LRCN Series 2, the Bank issued US$600 million of 3.625% Fixed Rate Resetting Perpetual Subordinated Additional Tier 1 Capital Notes (NVCC) ("the Series 2 AT1 Notes") at a price of US$1,000 per Series 2 AT1 Note, to Scotiabank LRCN Trust to be held as trust assets in connection with the LRCN structure. For more details, refer to Note 24(b) - Preferred shares and other equity instruments.

Credit ratings

Credit ratings are one of the factors that impact the Bank's access to capital markets and the terms on which it can conduct derivatives, hedging transactions and borrow funds. The credit ratings and outlook that the rating agencies assign to the Bank are based on their own views and methodologies.

The Bank continues to have strong credit ratings and its deposits and legacy senior debt are rated AA by DBRS, Aa2 by Moody's, AA by Fitch and A+ by Standard and Poor's (S&P). The Bank's bail-inable senior debt is rated AA (low) by DBRS, A2 by Moody's, AA- by Fitch and A- by S&P. The Bank's outlook is rated Stable by DBRS, Moody's and S&P, and Negative by Fitch.

Risk-weighted assets

Regulatory capital requirements are based on OSFI's target minimum percentage of risk-weighted assets (RWA). RWA represent the Bank's exposure to credit, market and operational risk and are computed by applying a combination of the OSFI approved Bank's internal risk models and OSFI prescribed risk weights to on- and off-balance sheet exposures.

As at year end, the Bank's RWA of $416.1 billion, represents a decrease of approximately $1.0 billion, or 0.2%, from 2020, due primarily to the benefit of foreign currency translation of a stronger Canadian dollar and from improvements in book quality, partly offset by strong organic growth in RWA.

Credit risk-weighted assets

Credit risk-weighted assets decreased by $3.2 billion to $358.8 billion. The key drivers or components of the change are reflected in Table T31, below.

T31 Flow statement for Basel III credit risk-weighted assets ($ millions)

	2021		2020	
Credit risk-weighted assets movement by key driver ($ millions)	**Credit risk**	**Of which counterparty credit risk**	Credit risk	Of which counterparty credit risk
Credit risk-weighted assets as at beginning of year	**$ 362,004**	**$ 18,981**	$ 365,431	$ 20,126
Book size (1)	**22,859**	**(1,850)**	15,641	8,798
Book quality (2)	**(10,586)**	**(743)**	(6,396)	(2,160)
Model updates (3)	**569**	**(983)**	(431)	(431)
Methodology and policy (4)	**2,315**	**3,770**	2,106	(7,422)
Acquisitions and disposals	**(418)**	**–**	(9,756)	–
Foreign exchange movements	**(17,372)**	**(1,129)**	(3,792)	70
Other	**(589)**	**–**	(799)	–
Credit risk-weighted assets as at end of year	**$ 358,782**	**$ 18,046**	$ 362,004	$ 18,981

(1) Book size is defined as organic changes in book size and composition (including new business and maturing loans).
(2) Book quality is defined as quality of book changes caused by experience such as underlying customer behaviour or demographics, including changes through model calibrations/realignments.
(3) Model updates are defined as model implementation, change in model scope or any change to address model enhancement.
(4) Methodology and policy is defined as methodology changes to the calculations driven by regulatory policy changes, such as new regulation (e.g. Basel III).

T32 Internal rating scale (1) and mapping to external rating agencies

Equivalent Rating					
External Rating – S&P	**External Rating – Moody's**	**External Rating – DBRS**	**Grade**	**IG Code**	**PD Range (2)**
AAA to AA+	Aaa to Aa1	AAA to AA (high)		99-98	0.0000% – 0.0428%
AA to A+	Aa2 to A1	AA to A (high)	Investment	95	0.0428% – 0.1159%
A to A-	A2 to A3	A to A (low)	grade	90	0.0512% – 0.1271%
BBB+	Baa1	BBB (high)		87	0.0800% – 0.2027%
BBB	Baa2	BBB		85	0.1143% – 0.2950%
BBB-	Baa3	BBB (low)		83	0.1632% – 0.4293%
BB+	Ba1	BB (high)		80	0.2638% – 0.4731%
BB	Ba2	BB	Non-Investment	77	0.4264% – 0.5215%
BB-	Ba3	BB (low)	grade	75	0.5215% – 0.6892%
B+	B1	B (high)		73	0.6892% – 1.3282%
B to B-	B2 to B3	B to B (low)		70	1.3282% – 2.5597%
CCC+	Caa1	–		65	2.5597% – 9.3860%
CCC	Caa2	–	Watch list	60	9.3860% – 17.8585%
CCC- to CC	Caa3 to Ca	–		40	17.8585% – 34.4434%
–	–	–		30	34.4434% – 58.6885%
Default			Default	21	100%

(1) Applies to non-retail portfolio.
(2) PD ranges overlap across IG codes as the Bank utilizes two risk rating systems for its AIRB portfolios and each risk rating system has its own separate IG to PD mapping.

T33 Non-retail AIRB portfolio exposure by internal rating grade(1)

As at October 31 ($ millions)		2021					2020				
Grade	IG Code	Exposure at default ($)(3)	RWA ($)(4)	PD (%)(5)(8)	LGD (%)(6)(8)	RW (%)(7)(8)	Exposure at default ($)(3)	RWA ($)(4)	PD (%)(5)(8)	LGD (%)(6)(8)	RW (%)(7)(8)
Investment grade(2)	99-98	106,517	501	–	9	–	116,335	964	–	12	1
	95	58,652	5,703	0.05	30	10	78,361	7,567	0.05	27	10
	90	72,172	9,898	0.07	36	14	67,164	8,475	0.06	34	13
	87	64,562	14,851	0.09	40	23	63,827	14,022	0.09	40	22
	85	52,838	17,462	0.15	45	33	45,973	15,509	0.15	45	34
	83	56,540	25,822	0.24	46	46	53,969	24,944	0.25	46	46
Non-Investment grade	80	47,700	22,337	0.31	42	47	42,509	21,015	0.31	44	49
	77	33,774	18,315	0.45	42	54	33,708	19,245	0.46	43	57
	75	22,822	13,659	0.69	40	60	25,527	15,576	0.69	41	61
	73	8,449	5,968	1.33	35	71	10,326	7,789	1.33	37	75
	70	2,814	2,348	2.56	36	83	4,555	4,079	2.56	37	90
Watch list	65	1,302	1,819	9.38	37	140	1,224	1,707	9.39	35	139
	60	1,625	2,343	17.87	29	144	1,801	2,702	17.87	30	150
	40	696	1,922	27.74	51	276	506	994	27.13	35	196
	30	92	152	56.61	44	165	109	214	55.94	46	196
Default(9)	21	1,228	2,535	100.00	42	206	1,555	2,946	100.00	41	189
Total		531,783	145,635	0.54	33	27	547,449	147,748	0.59	33	27
Government guaranteed residential mortgages		73,044	–	–	21	–	78,754	–	–	22	–
Total		604,827	145,635	0.47	32	24	626,203	147,748	0.52	32	24

(1) Excludes securitization exposures.
(2) Excludes government guaranteed residential mortgages of $73.0 billion ($78.8 billion in 2020).
(3) After credit risk mitigation.
(4) RWA prior to 6% scaling factor.
(5) PD – Probability of Default.
(6) LGD – Loss Given Default.
(7) RW – Risk Weight.
(8) Exposure at default used as basis for estimated weightings.
(9) Gross defaulted exposures, before any related allowances.

Credit risk-weighted assets – non-retail

Credit risk measures the risk that a borrower or counterparty will fail to honour its financial or contractual obligations to the Bank. The Bank uses the Advanced Internal Ratings Based (AIRB) approach under Basel III to determine minimum regulatory capital requirements for its domestic, U.S. and European credit portfolios, and certain international non-retail portfolios. The remaining credit portfolios are subject to the Standardized approach, which relies on the external credit ratings (e.g. S&P, Moody's, DBRS, etc.) of borrowers, if available, to compute regulatory capital for credit risk. For the Bank's Corporate, Bank and Sovereign AIRB portfolios, the key risk measures used in the quantification of regulatory capital for credit risk include probability of default (PD), loss given default (LGD) and exposure at default (EAD).

- Probability of default (PD) measures the likelihood that a borrower, with an assigned Internal Grade (IG) code, will default within a one-year time horizon. IG codes are a component of the Bank's risk rating system. Each of the Bank's internal borrower IG codes is mapped to a PD estimate.
- Loss given default (LGD) measures the severity of loss on a facility in the event of a borrower's default. LGD segments are determined based on facility characteristics such as seniority, collateral type, collateral coverage and other structural elements. Each LGD segment is assigned a LGD estimate. LGD is based on the concept of economic loss and is calculated using the present value of repayments, recoveries and related direct and indirect expenses.
- Exposure at default (EAD) measures the expected exposure on a facility at the time of default.

All three risk measures are estimated using the Bank's historical data, as well as available external benchmarks, and are updated on a regular basis. The historical data used for estimating these risk measures exceeds the minimum five-year AIRB requirement for PD estimates and the minimum seven-year AIRB requirement for LGD and EAD estimates. Further adjustments, as required under the Basel III Framework and OSFI's requirements set out in its Domestic Implementation Notes, including any input floor requirements, are applied to average estimates obtained from historical data. These adjustments incorporate the regulatory requirements pertaining to:

- Long-run estimation of PD, which requires that PD estimates capture average default experience over a reasonable mix of high-default and low-default years of the economic cycle;
- Downturn estimation for LGD, which requires that LGD estimates appropriately reflect conditions observed during periods where credit losses are substantially higher than average; and
- Downturn estimation for EAD, which requires that EAD estimates appropriately reflect conditions observed during periods of economic downturn; and
- The addition of a margin of conservatism, which is related to the likely range of errors based on the identification and quantification of the various sources of uncertainty inherent in historical estimates.

These risk measures are used in the calculation of regulatory capital requirements based on formulas specified by the Basel framework. The credit quality distribution of the Bank's AIRB non-retail portfolio is shown in Table T33. Year-over-year, the lower overall portfolio average PD is primarily due to decreases in defaulted exposures and customer ratings changes. In addition, portfolio average LGD and RW were generally flat year-over-year.

The risk measures are subject to a rigorous back-testing framework which uses the Bank's historical data to ensure that they are appropriately calibrated. Based on results obtained from the back-testing process, risk measures are reviewed, re-calibrated and independently validated on at least an annual basis in order to reflect the implications of new data, technical advances and other relevant information.

- As PD estimates represent long-run parameters, back-testing is performed using historical data spanning at least one full economic cycle. Realized PDs are back-tested using pre-defined confidence intervals, and the results are then aggregated to provide an overall assessment of the appropriateness of each PD estimate;
- The back-testing for LGD and EAD estimates is conducted from both long-run and downturn perspectives, in order to ensure that these estimates are adequately conservative to reflect both long-run and downturn conditions.

Portfolio-level back-testing results, based on a comparison of estimated and realized parameters for the four-quarter period ended at July 31, 2021, are shown in Table T34. During this period the actual experiences for PD and CCF were significantly more favourable than the estimates as reflected within the risk parameters. For LGD, actual results are a reflection of the accounts that defaulted during the observation while the estimated LGD is an overall portfolio average LGD parameter for all accounts and of all risk profiles.

T34 Portfolio-level comparison of estimated and actual non-retail percentages

	Estimated(1)	Actual
Average PD	0.60	0.22
Average LGD	39.86	42.95
Average CCF(2)	48.70	18.15

(1) Estimated parameters are based on portfolio averages at Q3/20, whereas actual parameters are based on averages of realized parameters during the subsequent four quarters.
(2) EAD back-testing is performed through Credit Conversion Factor (CCF) back-testing, as EAD is computed using the sum of the drawn exposure and undrawn exposure multiplied by the estimated CCF.

Credit risk-weighted assets – Canadian retail

The AIRB approach is used to determine minimum regulatory capital requirements for the retail credit portfolio in Canada. The retail portfolio is comprised of the following Basel-based pools:

- Residential real estate secured exposures consist of conventional and high ratio residential mortgages and all other products opened under the Scotia Total Equity Plan (STEP), such as loans, credit cards and secured lines of credit;
- Qualifying revolving retail exposures consist of all unsecured credit cards and lines of credit;
- Other retail consists of term loans (secured and unsecured), as well as credit cards and lines of credit which are secured by assets other than real estate.

For the AIRB portfolios, the following models and parameters are estimated, subject to parameter input floors as required by OSFI:

- Probability of default (PD) is the likelihood that the facility will default within the next 12 months.
- Loss Given Default (LGD) measures the economic loss as a proportion of the defaulted balance.
- Exposure at Default (EAD) is the portion of expected exposures at time of default.

The data observation period used for PD/EAD/LGD estimates meets the five year minimum. Various statistical techniques including predictive modeling and decision trees were used to develop models. The models assign accounts into homogenous segments using internal and external borrower/facility-level credit experience. Every month, exposures are automatically re-rated based on risk and loss characteristics. PD, LGD and EAD estimates are then assigned to each of these segments incorporating the following regulatory requirements:

- PD incorporates the average long run default experience over an economic cycle. This long run average includes a mix of high and low default years.
- LGD is adjusted to appropriately reflect economic downturn conditions.
- EAD may also be adjusted to reflect downturn conditions when PD and EAD are highly correlated.
- Sources of uncertainty are reviewed regularly to ensure uncertainties are identified, quantified and included in calculations so that all parameter estimates reflect appropriate levels of conservatism.

The table below summarizes the credit quality distribution of the Bank's AIRB retail portfolio as at October 31, 2021.

Year-over-year reductions in the average risk weight are primarily due to a lower portfolio average PD which is due primarily to reduced delinquencies and lower revolving credit account utilization rates. In addition, the lower portfolio average LGD is mainly from an increasing mix of loans secured by residential real estate.

T35 Retail AIRB portfolio exposure by PD range(1)

As at October 31 ($ millions)		2021					2020				
Category	PD Range	Exposure at default ($)(1)	RWA ($)(2)	PD (%)(3)(6)	LGD (%)(4)(6)	RW (%)(5)(6)	Exposure at default ($)(1)	RWA ($)(2)	PD (%)(3)(6)	LGD (%)(4)(6)	RW (%)(5)(6)
Exceptionally low	0.0000% – 0.0499%	**91,426**	**1,973**	**0.04**	**25**	**2**	14,985	391	0.04	74	3
Very low	0.0500% – 0.1999%	**106,994**	**7,824**	**0.17**	**27**	**7**	99,114	4,775	0.08	28	5
Low	0.2000% – 0.9999%	**77,215**	**20,487**	**0.67**	**39**	**27**	129,345	24,387	0.51	30	19
Medium low	1.0000% – 2.9999%	**20,744**	**10,861**	**1.75**	**50**	**52**	20,162	11,150	1.93	52	55
Medium	3.0000% – 9.9999%	**7,316**	**7,382**	**5.26**	**71**	**101**	7,698	7,553	5.34	71	98
High	10.0000% – 19.9999%	**917**	**1,186**	**15.49**	**53**	**129**	631	842	12.16	48	133
Extremely high	20.0000% – 99.9999%	**863**	**1,446**	**37.02**	**56**	**168**	1,388	2,275	31.17	62	164
Default(7)(8)	100%	**430**	**1,882**	**100.00**	**71**	**438**	522	1,982	100.00	78	380
Total		**305,905**	**53,041**	**0.78**	**32**	**17**	273,845	53,355	0.94	35	19

(1) After credit risk mitigation.
(2) RWA prior to 6% scaling factor.
(3) PD – Probability of Default.
(4) LGD – Loss Given Default.
(5) RW – Risk Weight.

(6) Exposure at default used as basis for estimated weightings.
(7) Gross defaulted exposures, before any related allowances.
(8) Commencing in Q1 2020, RWA is being calculated on defaulted retail exposures. Previously, the risk impact was reflected in Expected Losses.

All AIRB models and parameters are monitored on a quarterly basis and independently validated annually by the Global Risk Management group. These models are tested to ensure rank ordering and back testing of parameters is appropriate. Comparison of estimated and actual loss parameters for the period ended July 31, 2021 is shown in Table T36. During this period the actual experience was either in-line with or materially more favourable than the estimates as reflected by the risk parameters.

T36 Estimated and actual loss parameters (1)

($ millions)	Average estimated PD (%)(2)(7)	Actual default rate (%)(2)(5)	Average estimated LGD (%)(3)(7)	Actual LGD (%)(3)(6)	Estimated EAD ($)(4)(7)	Actual EAD ($)(4)(5)
Residential real estate secured						
Residential mortgages						
Insured mortgages(8)	0.55	0.29	–	–	–	–
Uninsured mortgages	0.47	0.18	17.54	12.94	–	–
Secured lines of credit	0.28	0.11	31.19	19.70	49	46
Qualifying revolving retail exposures	1.70	0.88	82.67	76.60	475	418
Other retail	1.61	0.80	60.18	60.31	8	8

(1) Estimates and actual values are recalculated to align with new models implemented during the period.
(2) Account weighted aggregation.
(3) Default weighted aggregation.
(4) EAD is estimated for revolving products only.
(5) Actual based on accounts not at default as at four quarters prior to reporting date.
(6) Actual LGD calculated based on 24 month recovery period after default and therefore excludes any recoveries received after the 24 month period.
(7) Estimates are based on the four quarters prior to the reporting date.
(8) Actual and estimated LGD for insured mortgages are not shown. Actual LGD includes the insurance benefit, whereas estimated LGD may not.

Credit risk-weighted assets – International retail

International retail credit portfolios follow the Standardized approach and consist of the following components:

- Residential real estate secured lending; and,
- Other retail, consisting of term loans, credit cards and lines of credit.

Under the standardized approach, in general, residential real estate secured lending products are risk-weighted 35% and other retail products receive a 75% risk-weight.

Market risk

Market risk is the risk of loss from changes in market prices including interest rates, credit spreads, equity prices, foreign exchange rates, and commodity prices, the correlations between them, and their levels of volatility.

For all material trading portfolios, the Bank applies its internal models to calculate the market risk capital charge. OSFI has approved the Bank's internal VaR, Stressed VaR, Incremental Risk Charge and Comprehensive Risk Measure models for the determination of market risk capital. The attributes and parameters of these models are described in the Risk Measurement Summary.

In addition, for some non-material trading portfolios, the Bank applies the Standardized Approach for calculating market risk capital. The standardized method uses a "building block" approach, with the capital charge for each risk category calculated separately.

In the second quarter of 2020, OSFI temporarily reduced the Bank's Stressed Value-at-Risk (VaR) multipliers used in the calculation of market risk capital by a factor of 2. In addition, OSFI allowed the removal of Funding Valuation Adjustment (FVA) hedges in the calculation of market risk capital. Effective May 1, 2021, the temporary reduction in the Stressed Value at Risk (SVaR) multiplier was returned to pre-pandemic levels.

Below are the market risk requirements as at October 31, 2021 and 2020:

T37 Total market risk capital (1)

($ millions)	2021	2020
All-Bank VaR	**$ 93**	$ 157
All-Bank stressed VaR(2)	**353**	119
Incremental risk charge	**150**	227
Comprehensive risk measure	**–**	–
Standardized approach	**53**	83
Total market risk capital	**$ 649**	$ 586

(1) Equates to $8,112 million of market risk-weighted assets (2020 – $7,327 million).
(2) Increase from prior year primarily from OSFI's return of the stressed VaR multiplier to pre-pandemic levels.

T38 Risk-weighted assets movement by key drivers

	Market risk	
($ millions)	2021	2020
RWA as at beginning of the year	$ 7,327	$ 8,674
Movement in risk levels (1)	(1,803)	8,695
Model updates(2)	(538)	(242)
Methodology and policy(3)	3,134	(9,800)
Acquisitions and divestitures	(8)	–
RWA as at end of the year	$ 8,112	$ 7,327

(1) Movement in risk levels are defined as changes in risk due to position changes and market movements. Foreign exchange movements are embedded within Movement in risk levels.
(2) Model updates are defined as updates to the model to reflect recent experience, change in model scope.
(3) Methodology and policy is defined as methodology changes to the calculations driven by regulatory policy changes (e.g. Basel III).

Market risk-weighted assets increased by $0.8 billion to $8.1 billion, as shown in the table above, due primarily to methodology and policy changes arising from the reversal of OSFI's temporary reduction of the stressed VaR multiplier during COVID-19, partly offset by movements in risk levels and model updates.

Operational risk

Operational risk is the risk of loss, whether direct or indirect, to which the Bank is exposed due to external events, human error, or the inadequacy or failure of processes, procedures, systems or controls.

In January 2020, OSFI revised its capital requirements for operational risk in consideration of the finalized Basel III revisions, requiring that institutions previously approved for the Basel II Advanced Measurement Approach (AMA) for operational risk capital are to report operational risk capital using the existing Basel II Standardized Approach for fiscal years 2020, 2021 and 2022. Consistent with OSFI's requirements, the Bank applies the Standardized Approach for calculating operational risk capital as per the applicable Basel standards.

Under the Standardized Approach, total capital is determined as the sum of capital for each of eight Basel defined business activities. The capital for each activity is the product of the relevant risk factor, as defined by Basel, applied to the gross income of each respective business activity, as defined by OSFI Guideline – Capital Adequacy Requirements (November 2018).

Operational risk-weighted assets increased by $1.4 billion during the year to $49.2 billion primarily due to the growth in the Bank's gross income.

Internal capital

The Bank utilizes economic capital methodologies and measures to calculate internal capital. Internal capital is a measure of the unexpected losses inherent in the Bank's business activities. The calculation of internal capital relies on models that are subject to independent vetting and validation as required by the Bank's Model Risk Management Policy.

Management assesses its risk profile to determine those risks for which the Bank should attribute internal capital. The major risk categories included in internal capital are:

- Credit risk measurement is based on the Bank's internal credit risk ratings for derivatives, corporate and commercial loans, and credit scoring for retail loans. It is also based on the Bank's actual experience with recoveries and takes into account differences in term to maturity, probabilities of default, expected severity of loss in the event of default, and the diversification benefits of certain portfolios.
- Market risk for internal capital incorporates models consistent with the regulatory basis, with some exclusions, and calibrated to a higher 99.95% confidence interval, and models of other market risks, mainly structural interest rate and foreign exchange risks.
- Operational risk for internal capital is calculated based on an approach consistent with the Bank's regulatory capital requirements including a conservative forward-looking view of gross income.
- Other risks include additional risks for which internal capital is attributed, such as business risk, significant investments, insurance risk and real estate risk.

In addition, the Bank's measure of internal capital includes a diversification benefit which recognizes that all of the above risks will not occur simultaneously. The Bank also includes the full amount of goodwill and intangible assets in the internal capital amount.

For further discussion on risk management and details on credit, market and operational risks, refer to the Risk Management section.

Off-Balance Sheet Arrangements

In the normal course of business, the Bank enters into contractual arrangements that are either consolidated or not required to be consolidated in its financial statements, but could have a current or future impact on the Bank's financial performance or financial condition. These arrangements can be classified into the following categories: structured entities, securitizations, guarantees and other commitments.

Structured entities

Structured entities are designed to accomplish certain well-defined objectives and for which voting or similar rights are not the dominant factor in deciding who controls the entity. The Bank may become involved with structured entities either at the formation stage or at a later date. The Bank controls an investee when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. The Bank's arrangements with structured entities include:

- Structured entities that are used to provide a wide range of services to customers, such as structured entities established to allow clients to securitize their financial assets while facilitating cost-efficient financing, and to provide certain investment opportunities.
- Structured entities that the Bank sponsors and actively manages.

All structured entities are subject to a rigorous review and approval process to ensure that all significant risks are properly identified and addressed. The Bank consolidates all structured entities that it controls. For many of the structured entities that are used to provide services to customers, the Bank does not guarantee the performance of the structured entities' underlying assets and does not absorb any related losses. For other structured entities, such as securitization and investment vehicles, the Bank may be exposed to credit, market, liquidity or operational risks. Noteholders of securitizations may also be exposed to these risks. The Bank may earn fees based on the nature of its association with a structured entity.

Consolidated structured entities

The Bank controls its U.S. based multi-seller conduit and certain funding and other vehicles, and consolidates these structured entities in the Bank's consolidated financial statements.

As at October 31, 2021, total assets of consolidated structured entities were $87 billion, compared to $84 billion at the end of 2020. The increase in total assets was due primarily to increased mortgages sold into the Scotiabank Covered Bond Guarantor Limited Partnership, and the formation of Scotiabank LRCN Trust in connection with the issuance of limited recourse capital notes. More details of the Bank's consolidated structured entities are provided in Note 15(a) to the consolidated financial statements.

Unconsolidated structured entities

There are two primary types of association the Bank has with unconsolidated structured entities:

- Canadian multi-seller conduits administered by the Bank, and
- Structured finance entities.

The Bank earned total fees of $38 million in 2021 (October 31, 2020 – $30 million) from certain structured entities in which it had a significant interest at the end of the year but did not consolidate. More information with respect to the Bank's involvement with these unconsolidated structured entities, including details of liquidity facilities and maximum loss exposure by category is provided below and in Note 15(b) to the consolidated financial statements.

Canadian multi-seller conduits administered by the Bank

The Bank sponsors two Canadian-based multi-seller conduits that are not consolidated. During the year the Bank continued to assess its control conclusion for these conduits and there were no changes to the Bank's assessment. The Bank earned commercial paper issuance fees, program management fees, liquidity fees and other fees from these multi-seller conduits, which totaled $36 million in 2021, compared to $28 million in 2020. These multi-seller conduits purchase high-quality financial assets and finance these assets through the issuance of highly-rated commercial paper.

As further described below, the Bank's exposure to these off-balance sheet conduits primarily consists of liquidity support and temporary holdings of commercial paper. Although the Bank has power over the relevant activities of the conduits, it has limited exposure to variability in returns, which results in the Bank not consolidating the two Canadian conduits. The Bank has a process to monitor these exposures and significant events impacting the conduits to ensure there is no change in control, which could require the Bank to consolidate the assets and liabilities of the conduits at fair value.

A significant portion of the conduits' assets have been structured to receive credit enhancements from the sellers, including overcollateralization protection and cash reserve accounts. Each asset purchased by the conduits is supported by a backstop liquidity facility provided by the Bank in the form of a liquidity asset purchase agreement (LAPA). The primary purpose of the backstop liquidity facility is to provide an alternative source of financing in the event the conduits are unable to access the commercial paper market. Under the terms of the LAPA, in most cases, the Bank is not obliged to purchase defaulted assets.

The Bank's primary exposure to the Canadian-based conduits is the liquidity support provided, with total liquidity facilities of $4.9 billion as at October 31, 2021 (October 31, 2020 – $4.2 billion). The year-over-year increase was due to normal business operations. As at October 31, 2021, total commercial paper outstanding for the Canadian-based conduits was $3.5 billion (October 31, 2020 – $3.1 billion) and the Bank held 0.2% of the total commercial paper issued by these conduits. Table T39 presents a summary of assets purchased and held by the Bank's two Canadian multi-seller conduits as at October 31, 2021 and 2020, by underlying exposure.

All of the funded assets have at least an equivalent rating of AA or higher based on the Bank's internal rating program. Assets held in these conduits were investment grade as at October 31, 2021. Approximately 73% of the funded assets have final maturities falling within four years, and the weighted-average repayment period, based on cash flows, approximates 2.1 years.

T39 Assets held by Bank-sponsored Canadian-based multi-seller conduits

As at October 31 ($ millions)	2021 Funded assets(1)	2021 Unfunded commitments	2021 Total exposure(2)	2020 Funded assets(1)	2020 Unfunded commitments	2020 Total exposure(2)
Auto loans/leases	**$ 2,541**	**$ 474**	**$ 3,015**	$ 1,940	$ 444	$ 2,384
Trade receivables	**130**	**647**	**777**	186	596	782
Canadian residential mortgages	**250**	**260**	**510**	434	76	510
Equipment rental contracts	**560**	**11**	**571**	537	34	571
Other	**38**	**31**	**69**	–	–	–
Total(3)	**$ 3,519**	**$ 1,423**	**$ 4,942**	$ 3,097	$ 1,150	$ 4,247

(1) Funded assets are reflected at original cost, which approximates estimated fair value.
(2) Exposure to the Bank is through global-style liquidity facilities.
(3) These assets are substantially sourced from Canada.

Structured finance entities

The Bank has interests in structured finance entities used to assist corporate clients in accessing cost-efficient financing through their securitization structures. The Bank's maximum exposure to loss from structured finance entities was $1,765 million as at October 31, 2021 (October 31, 2020 – $2,014 million). The year-over-year decrease was due to normal business operations.

Other unconsolidated structured entities

The Bank sponsors unconsolidated structured entities including mutual funds, in which it has insignificant or no interest at the reporting date. The Bank is a sponsor when it is significantly involved in the design and formation at inception of the structured entity, and the Bank's name is used by the structured entity to create an awareness of the instruments being backed by the Bank's reputation and obligation. The Bank also considers other factors, such as its continuing involvement and obligations to determine if, in substance, the Bank is a sponsor. For the year ended October 31, 2021, the Bank earned $2,604 million income from its involvement with the unconsolidated Bank-sponsored structured entities, all of which is from Bank-sponsored mutual funds (for the year ended October 31, 2020 – $2,165 million).

Securitizations

The Bank securitizes its retail loans, as described further below, as an efficient source of financing its operations.

The Bank securitizes fully insured residential mortgage loans, originated by the Bank and third parties, through the creation of mortgage-backed securities that are sold to Canada Housing Trust (CHT), Canada Mortgage and Housing Corporation (CMHC) or third party investors. The sale of such mortgages does not meet the derecognition requirements where the Bank retains substantially all of the risks and rewards of ownership of the securitized mortgages. The transferred mortgages continue to be recognized on the Consolidated Statement of Financial Position, along with the proceeds from sale treated as secured borrowings. More details have been provided in Note 14 of the consolidated financial statements.

Third-party originated mortgages purchased by the Bank and social housing mortgage pools originated by the Bank qualify for derecognition where the Bank transfers substantially all of the risks and rewards of ownership to third parties. As at October 31, 2021, the outstanding amount of off-balance sheet securitized third-party originated mortgages was $10,289 million (October 31, 2020 – $6,741 million) and off-balance sheet securitized social housing pools was $804 million (October 31, 2020 – $870 million).

The Bank securitizes a portion of its Canadian personal and small business credit card receivables (receivables) through Trillium Credit Card Trust II (Trillium), a Bank-sponsored structured entity. Trillium issues senior and subordinated notes to investors. The proceeds of such issuances are used to purchase co-ownership interests in the receivables originated by the Bank. The sale of such co-ownership interests does not qualify for derecognition and therefore the receivables continue to be recognized on the Bank's Consolidated Statement of Financial Position. Recourse of the noteholders is limited to the purchased co-ownership interests. During the year, $1,075 million receivables were securitized through Trillium (2020 – $638 million).

The Bank securitizes a portion of its Canadian auto loan receivables (receivables) through Securitized Term Auto Receivables Trust (START entities) 2018-2, 2019-1 and 2019-CRT Bank-sponsored structured entities. The START entities issue senior and subordinated notes to the Bank and/or third-party investors, and the proceeds of such issuances are used to purchase discrete pools of retail indirect auto loan receivables from the Bank on a fully serviced basis. The sale of such pools does not qualify for derecognition and therefore the receivables continue to be recognized on the Bank's Consolidated Statement of Financial Position. Recourse of the note holders is limited to the receivables. During the year, no receivables were securitized through the START entities (2020 – $1,392 million). As at October 31, 2021, the outstanding senior and subordinated notes issued by the START entities and held by the Bank of $499 million (2020 – $1,017 million) are eliminated on consolidation.

Guarantees and other commitments

Guarantees and other commitments are fee-based products that the Bank provides to its customers. These products can be categorized as follows:

- Standby letters of credit and letters of guarantee. As at October 31, 2021, these amounted to $37 billion, compared to $35 billion last year. These instruments are issued at the request of a Bank customer to secure the customer's payment or performance obligations to a third party.
- Liquidity facilities. These generally provide an alternate source of funding to asset-backed commercial paper conduits in the event a general market disruption prevents the conduits from issuing commercial paper or, in some cases, when certain specified conditions or performance measures are not met;
- Indemnification contracts. In the ordinary course of business, the Bank enters into many contracts where it may indemnify contract counterparties for certain aspects of its operations that are dependent on other parties' performance, or if certain events occur. The Bank cannot estimate, in all cases, the maximum potential future amount that may be payable, nor the amount of collateral or assets available under recourse provisions that would mitigate any such payments. Historically, the Bank has not made any significant payments under these indemnities;

- Loan commitments. The Bank has commitments to extend credit, subject to specific conditions, which represent undertakings to make credit available in the form of loans or other financings for specific amounts and maturities. As at October 31, 2021, these commitments amounted to $240 billion, compared to $235 billion last year. The year-over-year increase is primarily due to an increase in business activity, partially offset by foreign currency translation.

These guarantees and loan commitments may expose the Bank to credit or liquidity risks, and are subject to the Bank's standard review and approval processes. For the guaranteed products, the dollar amounts represent the maximum risk of loss in the event of a total default by the guaranteed parties, and are stated before any reduction for recoveries under recourse provisions, insurance policies or collateral held or pledged.

Fees from the Bank's guarantees and loan commitment arrangements, recorded as credit fees in non-interest income in the Consolidated Statement of Income, were $643 million in 2021, compared to $622 million in the prior year. Detailed information on guarantees and loan commitments is disclosed in Note 35 in the consolidated financial statements.

Canadian Government Economic Response Plans

The Bank participated in the following plans as part of the Government of Canada's COVID-19 Economic Response Plan.

Canada Emergency Business Account (CEBA)

Through the CEBA program, the Bank facilitated loans with eligible small business customers and Export Development Canada (EDC).

Eligible small business customers received a loan of up to $60,000. The CEBA loans are derecognized from the Bank's Consolidated Statement of Financial Position as the program meets the pass-through criteria for derecognition of financial assets under IFRS 9. As at October 31, 2021, loans issued under the CEBA were approximately $4.3 billion (October 31, 2020 – $3.0 billion).

Business Credit Availability Program (BCAP)

The BCAP provides additional liquidity support to small business and commercial customers through EDC and Business Development Bank of Canada (BDC). As at October 31, 2021, loans issued under the BCAP were $160 million (October 31, 2020 – $95 million).

Under the EDC plan, EDC guarantees an 80% portion of new operating loans made to the export sector as well as domestic companies. Loans guaranteed by EDC continue to be recognized on the Consolidated Statement of Financial Position.

Under the BCAP, BDC entered into a co-lending facility with the Bank in which BDC purchases an 80% participation in term loans made to eligible small business and commercial customers. The portion of loans sold to BDC are derecognized from the Bank's Consolidated Statement of Financial Position as the program meets the derecognition criteria for a transfer under IFRS 9.

Under the BCAP Mid-Market Financing Program, BDC enters into loan syndications with the Bank and underwrites 90% of junior term loans made to eligible medium-sized businesses. The portion of the syndicated loans funded by the Bank is recognized on the Consolidated Statement of Financial Position.

Financial Instruments

Given the nature of the Bank's main business activities, financial instruments make up a substantial portion of the Bank's financial position and are integral to the Bank's business. Assets that are financial instruments include cash resources, securities, securities purchased under resale agreements, loans and customers' liability under acceptances. Financial instrument liabilities include deposits, acceptances, obligations related to securities sold under repurchase agreements, obligations related to securities sold short, subordinated debentures and capital instrument liabilities. In addition, the Bank uses derivative financial instruments for both trading and hedging purposes.

Financial instruments are generally carried at fair value, except for non-trading loans and receivables, certain securities and most financial liabilities, which are carried at amortized cost unless designated as fair value through profit and loss at inception.

Unrealized gains and losses on the following items are recorded in other comprehensive income (OCI):

- debt instruments measured at fair value through OCI,
- equity instruments measured at fair value through OCI,
- derivatives designated as cash flow hedges, and
- net investment hedges.

Gains and losses on derecognition of debt instruments at FVOCI are reclassified from OCI to the Consolidated Statement of Income under non-interest income. Gains and losses on derecognition of equity instruments designated at FVOCI are not reclassified from OCI to the Consolidated Statement of Income. Gains and losses on cash flow hedges and net investment hedges are recorded in the Consolidated Statement of Income when the hedged item affects income.

The Bank's accounting policies for derivatives and hedging activities are further described in Note 3 to the consolidated financial statements.

Interest income and expense on non-trading interest-bearing financial instruments are recorded in the Consolidated Statement of Income as part of net interest income. Credit losses related to loans are recorded in the provision for credit losses in the Consolidated Statement of Income. Interest income and expense, as well as gains and losses, on trading securities and trading loans are recorded in non-interest income – trading revenues.

Several risks arise from transacting financial instruments, including credit risk, liquidity risk, operational risk and market risk. The Bank manages these risks using extensive risk management policies and practices, including various Board-approved risk management limits.

A discussion of the Bank's risk management policies and practices can be found in the Risk Management section on pages 79 to 117. In addition, Note 36 to the consolidated financial statements presents the Bank's exposure to credit risk, liquidity risk and market risks arising from financial instruments as well as the Bank's corresponding risk management policies and procedures.

There are various measures that reflect the level of risk associated with the Bank's portfolio of financial instruments. For example, the interest rate risk arising from the Bank's financial instruments can be estimated by calculating the impact of a 100 basis point increase or decrease in interest rates on annual income, and the economic value of shareholders' equity, as described on page 101. For trading activities, Table T51 discloses the average one-day Value at Risk by risk factor. For derivatives, based on the maturity profile of the notional amount of the Bank's derivative financial instruments, only 18% (2020 – 17%) had a term to maturity greater than five years.

Note 10 to the consolidated financial statements provides details about derivatives used in trading and hedging activities, including notional amounts, remaining term to maturity, credit risk and fair values.

The fair value of the Bank's financial instruments is provided in Note 7 to the consolidated financial statements along with a description of how these amounts were determined.

The fair value of the Bank's financial instruments was favourable when compared to their carrying value by $3.9 billion as at October 31, 2021 (October 31, 2020 – favourable $3.5 billion). This difference relates mainly to loan assets, deposit liabilities, subordinated debentures and other liabilities. These changes are primarily driven by movements in interest rates and by volume changes. Fair value estimates are based on market conditions as at October 31, 2021, and may not be reflective of future fair values. Further information on how fair values are estimated is contained in the section on critical accounting estimates.

Disclosures specific to certain financial instruments designated at fair value through profit and loss can be found in Note 9 to the consolidated financial statements. These designations were made primarily to significantly reduce accounting mismatches.

Selected Credit Instruments – Publicly Known Risk Items

Mortgage-backed securities

Total mortgage-backed securities held in the Non-trading and Trading portfolios are shown in Table T40.

T40 Mortgage-backed securities

As at October 31 Carrying value ($ millions)	2021 Non-trading portfolio(1)	2021 Trading portfolio	2020 Non-trading portfolio(1)	2020 Trading portfolio
Canadian NHA mortgage-backed securities(2)	**$ 7,006**	**$ 2,022**	$ 6,459	$ 2,224
Canadian residential mortgage-backed securities	**–**	**–**	–	5
Commercial mortgage-backed securities	**–**	**–**	–	8
U.S. Agency mortgage-backed securities(3)	**6,134**	**–**	8,539	–
Total	**$ 13,140**	**$ 2,022**	$ 14,998	$ 2,237

(1) The balances are comprised of securities under the amortized cost and FVOCI measurement categories.
(2) Canada Mortgage and Housing Corporation is a corporation of the Government of Canada that provides a guarantee of timely payment to NHA mortgage-backed security investors.
(3) The Government National Mortgage Association (Ginnie Mae) is a U.S. Government corporation that provides a guarantee of timely payment to U.S. Agency mortgage-backed security investors.

Other

As at October 31, 2021, the Bank has insignificant exposure to highly leveraged loans awaiting syndication, auction-rate securities,Alt-A type loans, monoline insurance and investments in structured investment vehicles.

Risk Management

Effective risk management is fundamental to the success and resilience of the Bank and is recognized as key in the Bank's overall approach to strategy management. Scotiabank has a strong, disciplined risk culture where managing risk is a responsibility shared by all of the Bank's employees.

Risk Management Framework

The primary goals of risk management are to ensure that the outcomes of risk-taking activities are consistent with the Bank's strategies and risk appetite, and that there is an appropriate balance between risk and reward in order to maximize shareholder value. Scotiabank's Enterprise-Wide Risk Management Framework articulates the foundation for achieving these goals.

This Framework is subject to constant evaluation in order for it to meet the challenges and requirements of the global markets in which the Bank operates, including regulatory standards and industry best practices. The risk management programs of the Bank's subsidiaries align in all material respects to the Bank's risk management framework, although the actual execution of their programs may be different. They are designed to identify, assess, and mitigate threats and vulnerabilities to which the Bank is exposed and serve to enhance its overall resilience.



The Bank's risk management framework is applied on an enterprise-wide basis and consists of five key elements:

- Risk Governance
- Risk Appetite
- Risk Management Tools
- Risk Identification and Assessment
- Risk Culture

Risk Management Principles

Risk-taking and risk management activities across the enterprise are guided by the following principles:

Balancing Risk and Reward – business and risk decisions are consistent with strategies and risk appetite.

Understand the Risks – all material risks to which the Bank is exposed, including both financial and non-financial, are identified and managed.

Forward Thinking – emerging risks and potential vulnerabilities are proactively identified and managed.

Shared Accountability – every employee is responsible for managing risk.

Customer Focus – understanding our customers and their needs is essential to all business and risk decision-making.

Protect our Brand – all risk-taking activities must be in line with the Bank's risk appetite, Scotiabank Code of Conduct, values and policy principles.

Controls – maintaining a robust and resilient control environment to protect our stakeholders.

Resilience – being prepared operationally and financially to respond to adverse events.

Compensation – performance and compensation structures reinforce the Bank's values and promote sound risk taking behaviour taking into account the compensation-related regulatory environment.

Risk Governance

Effective risk management begins with effective risk governance.

The Bank has a well-established risk governance structure, with an active and engaged Board of Directors supported by an experienced executive management team. Decision-making is highly centralized through a number of executive and senior risk management committees.

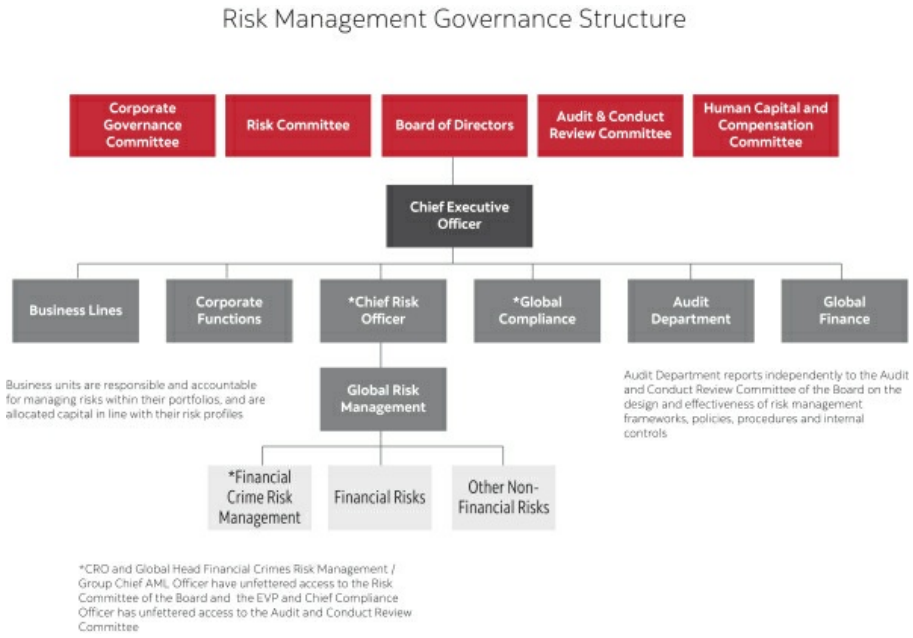
The Bank's risk management framework is predicated on the three lines of defence model. Within this model

- The First Line of Defence (typically comprised of the business lines and most corporate functions)
  - Incurs and owns the risks
  - Designs and executes internal controls
  - Ensures that the risks generated are identified, assessed, managed and monitored, are within risk appetite, and are in compliance with relevant policies, guidelines and limits
- The Second Line of Defence (typically comprised of control functions such as Global Risk Management and Global Finance)
  - Provides independent assessment, oversight, and objective challenge to the First Line of Defence, as well as monitoring and control of risk
  - Establishes risk appetite, risk limits, policies, and frameworks, in accordance with best practice and regulatory requirements
  - Measures, monitors, and reports on risks taken in relation to limits and risk appetite, and on emerging risks
- The Third Line of Defence (Audit Department) provides enterprise-wide independent, objective assurance over the design and operation of the Bank's internal control, risk management and governance processes

All employees are, for some of their activities, risk owners, as all employees are capable of generating reputational and operational risks in their day to day activities and are held accountable for owning and managing these risks.

Governance Structure

The Bank's Board of Directors and its Committees provide oversight and governance over the Bank's Risk Management program which is supported by the President and Chief Executive Officer and Chief Risk Officer.



The Board of Directors: as the top of the Bank's risk management governance structure, provides oversight, either directly or through its committees, to satisfy itself that decision making is aligned with the Bank's strategies and risk appetite. The Board receives regular updates on the key risks of the Bank – including a quarterly comprehensive summary of the Bank's risk profile and performance of the portfolio against defined limits – and approves key risk policies, frameworks, and limits.

The Risk Committee of the Board: assists the Board in fulfilling its responsibilities for the review of the Bank's risk appetite and identifying and monitoring key financial and non-financial risks and the oversight of the promotion and maintenance of a strong risk culture throughout the Bank. The Committee assists the Board by providing oversight of the risk management and anti-money laundering (AML) functions at the Bank. This includes periodically reviewing and approving the Bank's key risk management policies, frameworks, and limits and satisfying itself that management is operating within the Bank's Enterprise Risk Appetite Framework. The Committee oversees the Bank's environmental, social, and governance (ESG) risks, including climate change risk. The Committee also oversees the independence of each of these control functions, including the effectiveness of the heads of these functions, as well as the functions themselves.

Audit and Conduct Review Committee of the Board: assists the Board by providing oversight on the effectiveness of the Bank's system of internal controls. The Committee oversees the integrity of the Bank's consolidated financial statements and related quarterly results. This includes oversight of climate-change related disclosure as part of the Bank's financial reporting of ESG matters as well as the external auditor's qualifications, independence and performance. This Committee assists the Board in fulfilling its oversight responsibilities for setting standards of conduct and ethical behaviour, and the oversight of conduct review, risk culture and conduct risk management. The Committee also oversees the Bank's compliance with legal and regulatory requirements, and oversees the Global Finance, Global Compliance and Audit Department functions at the Bank. The Committee also oversees the independence of each of these control functions, including the effectiveness of the heads of these functions, as well as the functions themselves.

Human Capital and Compensation Committee of the Board: in conjunction with the Risk Committee of the Board, satisfies itself that adequate procedures are in place to identify, assess and manage the risks (including conduct risk) associated with the Bank's material compensation programs and that such procedures are consistent with the Bank's risk management programs. The Committee has further responsibilities relating to leadership, succession planning and total rewards.

Corporate Governance Committee of the Board: acts in an advisory capacity to the Board to enhance the Bank's corporate governance through a continuing assessment of the Bank's approach to corporate governance and makes policy recommendations in support of the Bank's purpose, culture and strategy.

President and Chief Executive Officer (CEO): reports directly to the Board and is responsible for defining, communicating and implementing the strategic direction, goals and core values for Scotiabank that maximize long term shareholder value and returns, and meeting the needs of the Bank's other key stakeholders. The CEO oversees the establishment of the Bank's risk appetite, in collaboration with the CRO and CFO, which is consistent with the Bank's short and long term strategy, business and capital plans, as well as compensation programs.

Chief Risk Officer (CRO): reports jointly to the CEO and the Risk Committee of the Board and is responsible for the overall management of Global Risk Management which includes Enterprise Risk Governance and Financial Crimes Risk Management (FCRM). The CRO and the head of FCRM also have unfettered access to the Risk Committee of the Board to ensure their independence. As a senior member of the Bank's executive management team, the CRO participates in strategic decisions related to where and how the Bank will deploy its various sources of capital to meet the performance targets of the business lines.

Global Risk Management (GRM): supports the Bank's objectives and is mandated to maintain an ongoing and effective enterprise-wide risk management framework that resonates through all levels of the Bank. GRM is responsible for providing effective challenge and reasonable assurance to executive management, the Board of Directors and shareholders that risks are actively identified, managed and communicated to all key stakeholders. GRM's mission is to ensure that the outcomes of risk taking activities optimize and protect long-term value by using data-driven insight and partnership to drive business impact.

Global Compliance: on an enterprise-wide basis, manages compliance risk which includes regulatory compliance, conduct, and privacy risks throughout Scotiabank. A primary objective of Global Compliance is to take a holistic view of compliance risk to ensure consistency in the application of the Compliance Program, and assurance of outputs from its compliance risk management processes. Global Compliance provides independent oversight of Compliance risk through the Compliance Program by:

- developing and maintaining compliance frameworks, policies, standards, and procedures;
- effectively challenging compliance risk management in the Bank's Business Lines and managing Compliance risk in Corporate Functions through the adoption of a reliance model;
- acting as a consultant and educator on regulatory compliance, internal policies and procedures; and
- being responsible for conducting ongoing risk-based enterprise-wide assessment, monitoring, testing, issues management, regulatory relationship management, and reporting.

Financial Crimes Risk Management (FCRM): on an enterprise-wide basis, develops AML/ATF and sanctions policies and control standards to be followed in effectively controlling money laundering, terrorist financing, and sanctions risks. The AML Risk group within FCRM is responsible for maintaining the AML/ATF and sanctions program current with Scotiabank needs, industry practice, and AML/ATF and sanctions legal and regulatory requirements, as well as providing risk-based independent oversight of Scotiabank's compliance with these standards and requirements. FCRM also provides oversight and objective challenge to the Bank's risk of fraud.

Global Finance: leads enterprise-wide financial strategies which support the Bank's ability to maximize sustainable shareholder value, and actively manages the reliable and timely reporting of financial information to management, the Board of Directors and shareholders, regulators, as well as other stakeholders. This reporting includes the Bank's consolidated financial statements and related quarterly and annual results, as well as all financial reporting related regulatory filings. Global Finance executes the Bank's financial and capital management strategies with appropriate governance and control, while ensuring its processes are efficient and effective.

Business Lines and Corporate Functions: as the first line of defence in the Three Lines of Defence model, own the risks generated by their activities, are accountable for effective management of the risks within their business lines and functions through identifying, assessing, mitigating, monitoring and reporting the risks. Business lines and corporate functions actively design and implement effective internal controls as well as governance activities to manage risk and maintain activities within risk appetite and policies. Further, business lines have processes to be able to effectively identify, assess, monitor and report against allocated risk appetite limits and are in compliance with relevant policies, standards and guidelines.

Audit Department: reports independently to the Audit and Conduct Review Committee of the Board on the design and operating effectiveness of the Bank's risk management processes. The mission of the Audit Department is to provide enterprise-wide independent, objective assurance of the Bank's internal controls, risk management and governance processes and to provide advisory consulting services to improve the Bank's operations.

Risk Appetite

Effective risk management requires clear articulation of the Bank's risk appetite and how the Bank's risk profile will be managed in relation to that appetite.

The Bank's Enterprise Risk Appetite Framework (RAF) articulates the amount and types of risk the Bank is willing to take to achieve its strategic and financial objectives. The RAF consists of risk capacity, risk appetite statement, risk appetite metrics, and roles and responsibilities of those overseeing the implementation and monitoring of the RAF. Together, the application of these components helps to ensure the Bank stays within the appropriate risk boundaries, finds an optimal balance between risk and return, and supports a strong risk culture.



Scotiabank's risk appetite is integrated into the strategic and capital planning process and compensation programs. The RAF is reviewed at least annually and is approved by the Bank's Board. Business lines, key subsidiaries, control functions and key business units develop their own risk appetite frameworks and/or risk appetite statements, which are aligned with the Bank's RAF.

Risk Appetite Statement

The Bank's Risk Appetite Statement articulates the aggregate level and types of risk the Bank is willing to accept, or to avoid, in order to achieve its business objectives. It includes qualitative statements as well as quantitative measures and considers all the Bank's Principal Risks.

The Bank's Risk Appetite Statement can be summarized as follows:

- The Bank has no appetite for breaches of the Scotiabank Code of Conduct. Bank officers and employees are expected to conduct business and interact with others in a legal, compliant and ethical manner while upholding the Bank's corporate values.
- The Bank favours businesses that generate sustainable, consistent and predictable earnings.
- The Bank limits its risk taking activities to those that are understood and in line with the Bank's risk appetite, risk culture, values and strategic objectives.
- The Bank strives to maintain a robust and resilient control environment to protect its stakeholders and be prepared operationally and financially to respond to adverse events.
- The Bank has no appetite for reputational, legal, or regulatory risk, that would undermine the trust of the Bank's stakeholders.
- The Bank aims to maintain a strong capital and liquidity position and optimally allocate capital to support its strategic and financial objectives.

Risk Appetite Metrics

Risk appetite metrics provide clear risk limits, which are critical in implementing an effective risk management framework. Risk appetite metrics are supported by management level limit structures and controls, as applicable.

Other components of Scotiabank's risk appetite metrics:

- Set risk capacity and appetite in relation to regulatory constraints
- Use stress testing to provide forward-looking metrics
- Minimize earnings volatility
- Limit exposure to operational events that can have an impact on earnings, including regulatory fines
- Ensure reputational risk is top of mind and strategy is being executed within operating parameters

Risk Management Tools

Effective risk management includes tools that are guided by the Bank's Enterprise Risk Appetite Framework and integrated with the Bank's strategies and business planning processes.

Scotiabank's risk management framework is supported by a variety of risk management tools that are used individually and/or jointly to manage enterprise-wide risks. Risk management tools are regularly reviewed and updated to ensure consistency with risk-taking activities, and relevance to the business and financial strategies of the Bank.

Frameworks, Policies and Limits

Frameworks and Policies

The Bank develops and implements its key risk frameworks and policies in consultation with the Board. Such frameworks and policies are also subject to the requirements and guidelines of the Office of the Superintendent of Financial Institutions (OSFI), the Bank Act, the requirements and expectations of other regulators in the jurisdictions and activities in which we conduct business, and in consideration of industry best practices. Frameworks and policies apply to specific types of risk or to the activities that are used to measure and control risk exposure. They are developed in consultation with various stakeholders across risk management and other control and corporate functions, business lines and the Audit Department. Their development and implementation are guided by the Bank's risk appetite, good governance and set the limits and controls within which the Bank and its subsidiaries can operate. The Bank also provides advice and counsel to its subsidiaries in respect of their risk frameworks and policies to ensure alignment with the Bank, subject to the local regulatory requirements of each subsidiary.

Key risk frameworks and policies may be supported by standards, procedures, guidelines and manuals.

Limits

Limits govern and control risk-taking activities within the appetite and tolerances established by the Board and executive management. Limits also establish accountability for key tasks in the risk-taking process and establish the level or conditions under which transactions may be approved or executed.

Risk Measurement

The Bank's measurement of risk is a key component of its risk management framework. The measurement methodologies may apply to a group of risks or a single risk type and are supported by an assessment of qualitative risk factors to ensure the level of risks are within the Bank's risk appetite. The Bank utilizes various risk techniques such as: models; stress testing; scenario and sensitivity analysis; and back testing using data with forward-looking projections based on plausible and worst case economic and financial market events; to support its risk measurement activities.

Models

The use of quantitative risk methodologies and models is subject to a strong governance framework and includes the application of sound and experienced judgment. The development, design, independent review and testing, and approval of models are subject to formalized policies. The Bank employs models for a number of important risk measurement and management processes including:

- regulatory and internal capital
- internal risk management
- valuation/pricing and financial reporting
- meeting initial margin requirements
- business decision-making for risk management
- stress testing

The Bank's Model Risk Management Policy (MRMP) describes the overarching principles, policies, and procedures that provide the framework for managing model risk in a sound and prudent manner. These cover all stages of the model risk management cycle, including development, independent pre-implementation review, approval and post-implementation review.

Forward-Looking Exercises

Stress Testing

Stress testing programs at both the enterprise-wide level and individual risk level allow the Bank to estimate the potential impact on the Bank's performance resulting from significant changes in market conditions, credit environment, liquidity demands, or other risk factors. Enterprise-wide stress testing is also integrated with both the strategic and financial planning processes, as well as financial crisis management planning. The development, approval and on-going review of the Bank's stress testing programs are subject to policy, and the oversight of the Stress & Scenarios Committee (SSC) or other management committees as appropriate. Where appropriate, the Board of Directors or the Risk Committee of the Board approves stress testing limits for certain risk factors and receives reports on performance regularly. Each program is developed with input from a broad base of stakeholders, and results are integrated into management decision making processes for capital adequacy and/or allocation, funding requirements and strategy, risk appetite setting and limit determinations. The stress testing programs are designed to capture a number of stress scenarios with differing severities and time horizons.

Other tests are conducted, as required, at the enterprise-wide level and within specific functional areas to test the decision-making processes of the Senior Management team and key personnel, by simulating a potential stress scenario. Simulated stress scenarios may include several complexities and disruptions through which Senior Management are engaged to make certain key decisions. Generally, the objectives of the simulations can include testing (1) the executability of activation protocols, (2) operational readiness, (3) the flexibility of the executive decision-making process, and (4) the process by which actions to be taken are prioritized. The exercises may also be designed to test the applicability and relevance of available data and the timeliness of reporting for decision making under stressed/crisis conditions.

Monitoring and Reporting

The Bank continuously monitors its risk exposures to ensure business activities are operating within approved limits, thresholds or guidelines. Risk owners are responsible for identifying and reporting breaches of early warning thresholds and risk appetite limits or any other deteriorating trends in risk profile, as well as highlighting evolving external risk factors, to senior management and/or the Board, as appropriate.

Regular ongoing risk reporting to senior management and the Board of Directors aggregates measures of risk across products and businesses, across the Bank's global footprint, and are used to ensure compliance with risk appetite, policies, limits, and guidelines. They also provide a clear statement of the types, amounts, and sensitivities of the various risks in the portfolio. Senior management and the Board use this information to understand the Bank's risk profile and the performance of the portfolios. A comprehensive summary of the Bank's risk profile and performance of the portfolio is presented quarterly to the Board of Directors.

Risk Identification and Assessment

Effective risk management requires a comprehensive process to identify risks and assess their materiality. We define Risk as the potential impact of deviations from expected outcomes on the Bank's earnings, capital, liquidity, reputation and resilience caused by internal and external vulnerabilities.

Risk identification and assessment is performed on an ongoing basis through the following:

- Transactions – risks, including credit and market exposures, are assessed by the business lines as risk owners with GRM providing review and effective challenge, as applicable
- Monitoring – risks are identified by constantly monitoring and reporting current trends and analysis, top and emerging risks and internal and external significant adverse events impacting the Bank
- New Products and Services – new or significant change to products, services and/or supporting technology are assessed for potential risks through the New Initiatives Risk Assessment Program

- Strategic Investments – investment transactions are thoroughly reviewed for risks and are approved by the Operating Committee with advice and counsel from the Strategic Transactions and Investment Committee (STIC) who provides direction and guidance on effective allocation and prioritization of resources

On an annual basis, the Bank undergoes a Bank-wide risk assessment that identifies the material risks faced by the Bank for the Internal Capital Adequacy Assessment Process (ICAAP) and the determination of internal capital. This process evaluates the risks and determines the pervasiveness of the risk across multiple business lines, the significance of the risk to a specific business line, the likelihood and potential impact of the risk and whether the risk may cause unexpected losses in income and therefore would be mitigated by internal capital. The process also reviews other evolving and emerging risks and includes qualitative considerations such as strategic, economic and environmental risk factors. The identified risks are ascribed a rating of how probable and impactful they may be and are used as an important input in the ICAAP process and the determination of internal capital.

As part of this annual risk assessment process the Bank's Principal Risks for the year are identified through consultation with various risk owners and/or stakeholders and confirmed by the Risk Policy Committee.

Principal Risk Types

The Bank's Principal Risk types are reviewed annually as part of the Assessment of Risks process to determine that they adequately reflect the Bank's risk profile. Principal Risks are defined as:

Those risks which management considers of primary importance: i) having a significant impact or influence on the Bank's primary business and revenue generating activities (Financial Risks) or ii) inherent in the Bank's business and can have significant negative strategic, business, financial and/or reputational consequences (Non-Financial Risks (i.e. Core Risks)).

Principal Risks are assessed on an annual basis considering, amongst other things, the following factors:

- Potential impact (direct or indirect) on the Bank's financial results, operations, and strategy
- Effect on the Bank's long term prospects and ongoing viability
- Regulatory focus and/or social concern
- Short to mid-term macroeconomic and market environment
- Financial and human resources required to manage and monitor the risk
- Establishment of key risk indicators, performance indicators or management limits to monitor and control the risk
- Peer identification and global best practices
- Regular monitoring and reporting to the Board on the risk is warranted

Once a Principal Risk has been identified, governance structures and mechanisms must be in place for that risk:

- Committee governance structures have been established to manage the risk
- Dedicated 2nd line resources are in place providing effective challenge
- Frameworks and supporting policies, procedures and guidelines have been developed and implemented to manage the risk as appropriate
- Risk appetite limits have been established supported by management limits, early warning thresholds and key risk indicators as appropriate for the risk
- Adequate and effective monitoring and reporting has been established to the Board, executive and senior management, including from subsidiaries
- Board and executive management have clear roles and responsibilities in relation to risk identification, assessment, measurement, monitoring and reporting to support effective governance and oversight

Principal Risks are categorized into two main groups:

Financial Risks:

Credit, Liquidity, Market
These are risks that are directly associated with the Bank's primary business and revenue generating activities. The Bank understands these risks well and takes them on to generate sustainable, consistent and predictable earnings. Financial risks are generally quantifiable and are relatively predictable. The Bank has a higher risk appetite for financial risks which are a fundamental part of doing business; but only when they are well understood, within established limits, and meet the desired risk and return profile.

Non-Financial Risks (i.e. Core Risks):

Compliance, Cyber Security & Information Technology (IT), Data, Environmental, Model, Money Laundering / Terrorist Financing and Sanctions, Operational, Reputational, Strategic
These are risks that are inherent in our business and can have significant negative strategic, business, financial and/or reputational consequences if not managed properly. In comparison to financial risks, Core Risks are less predictable and more difficult to define and measure. The Bank has low risk appetite for Core Risks and mitigates these accordingly.

Significant Adverse Events

A Significant Adverse Event (SAE) is an internally or externally occurring event that may have a material impact on the Bank's financial performance, reputation, regulatory compliance, or operations. The Bank identifies, monitors and responds to internal significant adverse events through various functions including the Enterprise Crisis Management (ECM) unit who acts as the crisis coordinator when the most severe events threaten and/or impact Scotiabank's global operations. Externally occurring events are monitored and assessed in a decentralized manner dependent on the relevant risk type.

Risk Culture

Effective risk management requires a strong, robust, and pervasive risk culture where every Bank employee is a risk manager and is responsible for managing risks.

The Bank's risk culture is influenced by numerous factors including the interdependent relationship amongst the Bank's risk governance structure, risk appetite, strategy, organizational culture, and risk management tools.

A strong risk culture is a key driver of conduct. It promotes behaviours that align to the Bank's values and enables employees to identify risk taking activities that are beyond the established risk appetite.

The Bank's Risk Culture program is based on four indicators of a strong risk culture:

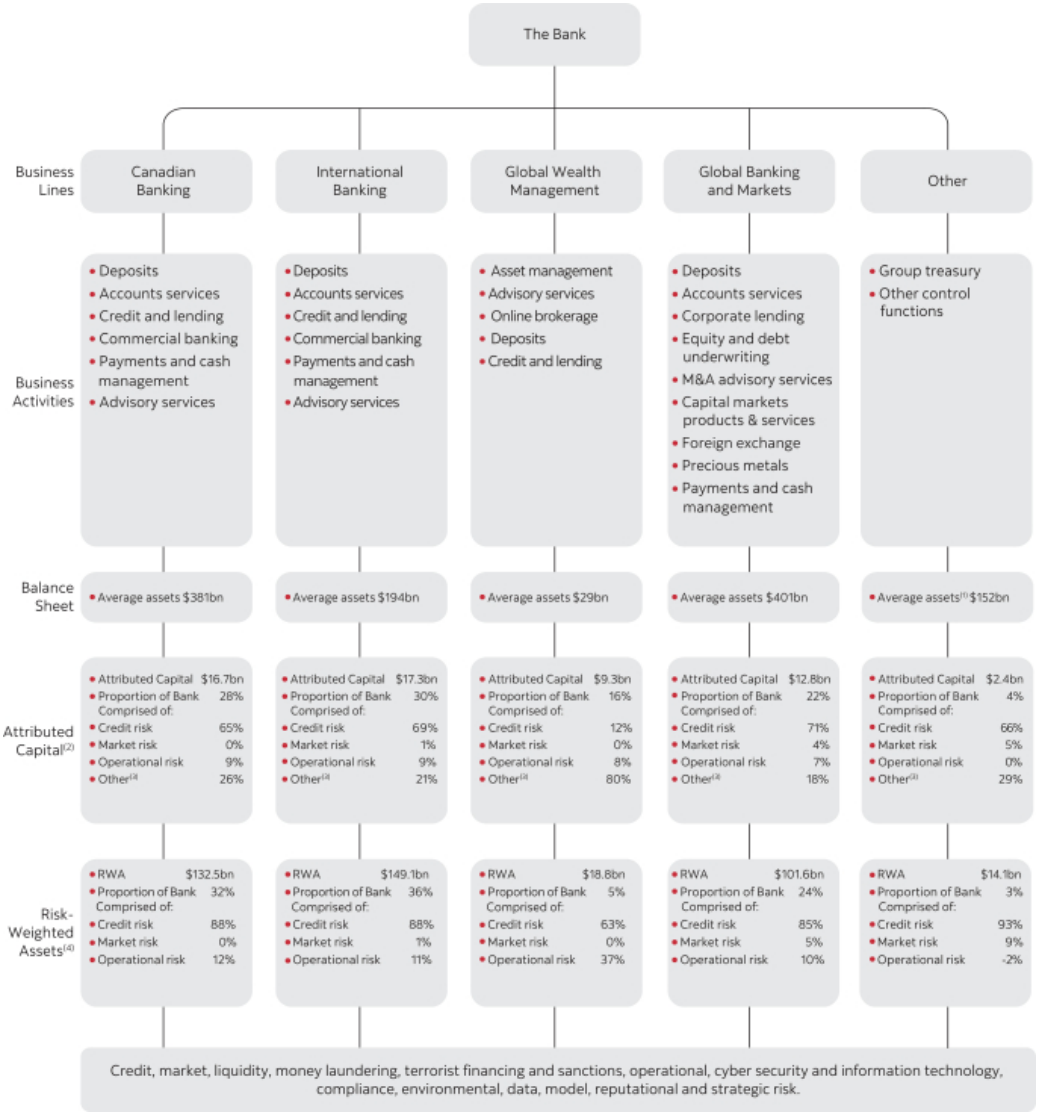
1. Tone from the Top – Leading by example including clear and consistent communication on risk behaviour expectations, the importance of Scotiabank's values, and fostering an environment where everyone has ownership and responsibility for "doing the right thing".
2. Accountability – All employees are accountable for risk management. There is an environment of open communication where employees feel safe to speak-up and raise concerns without fear of retaliation and consequences for not adhering to the desired behaviours.
3. Risk Management – Risk taking activities are consistent with the Bank's strategies and risk appetite. Risk appetite considerations are embedded in key decision making processes.
4. People Management – Performance and compensation structures encourage desired behaviours and reinforce the Bank's values and risk culture. Employees are rewarded for 'how' results are achieved in addition to 'what' is achieved.



Other elements that influence and support the Bank's risk culture:

- Scotiabank Code of Conduct (our "Code"): describes standards of conduct required of all directors, officers, and employees of the Bank. This includes an annual Code acknowledgement that they have read and complied with our Code and all applicable Scotiabank policies and procedures; and reported any breaches or suspected breach in accordance with the provisions set out in our Code or policy respectively.
- Values: Respect – Value Every Voice; Integrity – Act with Honour; Accountability – Make it Happen; Passion – Be Your Best
- Communication: the Bank actively communicates risk appetite, and how it relates to Scotiabankers, to promote a sound risk culture
- Compensation: programs are structured to comply with compensation-related principles and regulations and discourage behaviours that are not aligned with the Bank's values and Scotiabank Code of Conduct, and ensure that such behaviours are not rewarded
- Training: risk culture is continually reinforced by providing effective and informative mandatory and non-mandatory training modules for all employees on a variety of risk management topics
- Decision-making on risk issues is highly centralized: the flow of information and transactions to senior and executive committees keeps management well informed of the risks the Bank faces and ensures that transactions and risks are aligned with the Bank's risk appetite
- Employee goals: all employees across the Bank have a risk goal assigned to them annually
- Executive Mandates: all Executives across the Bank have risk management responsibilities within their mandates

T41 Exposure to risks arising from the activities of the Bank's businesses



(1) Average assets for the Other segment include certain non-earning assets related to the business lines.
(2) Attributed Capital is a combination of regulatory: (i) Risk-based capital and (ii) Leverage capital. Attributed Capital is reported on a quarterly average basis.
(3) Includes Attributed Capital for significant investments, goodwill, intangibles and leverage capital.
(4) Risk-weighted assets (RWA) are as at October 31, 2021 as measured for regulatory purposes in accordance with the Basel III approach.

Top and emerging risks

The Bank is exposed to a variety of top and emerging risks. These risks can potentially adversely affect the Bank's business strategies, financial performance and reputation. As part of our risk management approach, we proactively identify, assess, review, monitor and manage a broad range of top and emerging risks and undertake appropriate risk mitigation strategies.

A listing of top and emerging risks is generated using a comprehensive risk identification approach whereby information is gathered and consolidated from various sources including external research, Senior Management, and internal country/subsidiary risk reporting. External research is compiled from peer financial institution analysis and prominent sources for evaluating global risks. The results of this research, in conjunction with Senior Management's experience and the Bank's internal country/subsidiary risk reporting, help identify the Bank's top and emerging risks, which, along with mitigation strategies, are summarized and reported to Senior Management and the Board of Directors on a quarterly basis.

The Bank's top and emerging risks are as follows:

Environmental, Social and Governance

Environmental, Social and Governance (ESG) risk has the potential to impact the Bank in several ways. Emerging policy/regulatory action on ESG can elevate the Bank's reputational, legal and regulatory compliance risks. Environmental risk, specifically climate change, can impact the Bank's profitability through credit losses. Severe weather can damage the Bank's properties and disrupt operations. However, climate change also creates new opportunities to invest in sustainable finance initiatives. For further details please refer to the Environmental Risk section on page 114. Social and governance risk has the potential to elevate the Bank's reputational risk in the event that the Bank fails to meet increasing expectations to address social and environmental challenges and demonstrate exemplary governance. Scotiabank's commitment to manage our business responsibly, ethically, consider ESG attributes and operate in compliance with laws and regulations is reflected in several key policies and commitments.

Scotiabank's Code of Conduct describes the standards of conduct and responsibilities expected of employees, contingent workers, directors and officers of Scotiabank across our global operations. Mandatory training and attestation to the Code are required on an annual basis. Our Supplier Code of Conduct sets expectations for all current and prospective suppliers. It was updated in 2020 to reflect expectations related to supplier diversity and equity, environmental stewardship and climate change, data protection, anti-bribery and corruption and anti-money laundering.

Scotiabank aligns its human rights approach with the framework prescribed by the UN Guiding Principles on Human Rights. In 2021, the Bank worked with an independent organization to assess our Human Rights Statement and evaluate progress against the Bank's 2017-2020 priorities. This process involved internal and external stakeholder engagement to identify new and emerging issues and further address our most salient human rights impacts, risks and opportunities to inform an updated Human Rights Statement in 2021. The Bank publishes Anti-slavery and Human Trafficking statements outlining the Bank's processes to avoid slavery and human trafficking relevant to Modern Slavery legislation.

We are committed to being an inclusive employer and to address barriers to full accessibility and inclusion in the Bank. Scotiabank renewed several diversity and inclusion goals in 2020, stating targets to improve the representation of women, Black, Indigenous, People of Colour and those with disabilities in management and the overall workforce. We are a signatory to the UN Global Compact, and a founding member of Partnership for Global LGBTI Equality, a coalition of organizations committed to accelerating LGBTI equality and inclusion globally.

Cyber security and Information Technology risk

Cyber Security and Information Technology risks continue to impact financial institutions and other businesses in Canada and around the globe. Under COVID-19, the threat landscape has continued to evolve. Threat actors are adapting to this changing environment and continue to increase in sophistication, severity and prevalence as adversaries use ever evolving technologies and attack methodologies. These threat actors (individuals, organized crime rings and nation state sponsored) continue to target financial institutions to steal data, money or to disrupt operations.

Customer data may be used for extortion with ransomware data disclosure threats, and frauds may be perpetrated compromising bank accounts or breach payment systems.

The technology environment of the Bank, its customers and the third parties providing services may be subject to attacks, breaches or other compromises. The financial institutions' supply chain is often an attractive target as it can provide a trusted entry point to their environment. The Bank proactively monitors and manages the risks and constantly updates and refines programs as threats emerge to minimize disruptions and keep systems and information protected. Investments in controls to further improve the Bank's security posture continues. In addition, the Bank has purchased insurance coverage to help mitigate against certain potential losses associated with cyber incidents.

Money laundering, terrorist financing and sanctions compliance

Scotiabank is subject to the expanding and ever-evolving anti-money laundering/anti-terrorist financing and economic sanctions laws and regulations internationally across the Bank's footprint. Money laundering, terrorist financing, and economic sanctions violations represent material risk to the Bank including regulatory, legal, financial and reputational exposure. In the case of economic sanctions, the trend towards retaliatory sanctions laws and regulations and anti-blocking statutes in certain jurisdictions increases the potential for situations to arise involving conflicts of law, due to the Bank's global footprint.

The nature of financial crime threats faced by Scotiabank is also constantly evolving. Pandemic related fraud and customers affected by ransomware attacks are but a few recent examples. The Bank's AML Risk program seeks to respond to changing threats in a timely manner, consistent with a risk-based approach.

Legal and compliance risk

The Bank is subject to extensive regulation in the jurisdictions in which it operates. Although the Bank continually monitors and evaluates the potential impact of regulatory developments to assess the impact on our businesses and to implement any necessary changes, regulators and private parties may challenge our compliance. Failure to comply with legal and regulatory requirements may result in fines, penalties, litigation, regulatory sanctions, enforcement actions and limitations or prohibitions from engaging in business activities, all of which may negatively impact the Bank's financial performance and its reputation. In addition, day-to-day compliance with existing laws and regulations has involved and will continue to involve significant resources, including requiring the Bank to take actions or incur greater costs than anticipated, which may negatively

impact the Bank's financial performance. Such changes could also adversely impact the Bank's business strategies or limit its product or service offerings, or enhance the ability of the Bank's competitors to offer their own products and services that rival the Bank's. Regulators have also evidenced an increased focus on risks associated with conduct, privacy, data and model risk, and operational resilience. This focus could lead to more regulatory or other enforcement actions including for practices which may historically have been considered acceptable. Regulators across the Bank's geographic footprint continue to focus on ensuring operational resilience of regulated firms and that consumers are protected. Regulatory environment experienced a shift away from regulatory forbearance to increased regulatory reporting obligations and information requests with respect to certain subjects, such as customer assistance programs, liquidity, trade reporting and market conduct.

The Bank continues to monitor and respond to global regulatory developments relating to a broad spectrum of topics, such that control and business units are responsive on a timely basis and business impacts, if any, are minimized.

For additional information on some of the key regulatory developments that have the potential of impacting the Bank's operations, see "Regulatory Developments" on page 122.

Macroeconomic uncertainty

Macroeconomic uncertainties stemming from the evolving pandemic and the re-opening process, including high headline and core inflation, continue to affect the global economic recovery and related market sentiment. As always, in the short run, a market shock could potentially impact the Bank's trading and non-trading activities and revenues. Over a longer period of time, more broadly based macroeconomic effects from such shocks could potentially affect the Bank's exposures to particular customers and market segments. The COVID-19 pandemic has had disruptive effects in Canada including through elevated rates of unemployment and ongoing changes in the broader macroeconomic environment. Conditions have eased since the onset of activity restrictions in Q2 2020, and some sectors have regained pre-pandemic levels of economic output and employment, while others remain impaired. These developments have created a challenging situation for many Canadian households, especially those where income levels are low and/or debt ratios are high. While lower interest rates have reduced average debt-service ratios, successive waves of the pandemic, rising consumer prices, increasing housing costs, and uncertain employment prospects continue to leave many Canadian households vulnerable to further economic disruptions. The Bank proactively adjusts lending strategies across all markets and portfolios to reflect changes in the risk profile of its customers, with due consideration given to public-policy efforts to mitigate uncertainties and provide temporary relief to Canadians. Steps have been taken to expand collections capabilities to enable the Bank to support customers who are experiencing acute or prolonged financial distress. The Bank also performs ongoing stress tests on its current portfolios and continues to enhance risk management capabilities through investments in technology and analytics.

Technology innovation and disruption

Ongoing technology innovation continues to impact the financial services industry and its customers, and with COVID-19, the pace of digital adoption and business disruption models has accelerated. Global regulators continue to push for increased competition with open banking, in addition to, non-traditional new participants entering certain segments of the market and challenging the position of financial institutions. New participants are disrupting the traditional Bank operating model with the use of advanced technologies, agile delivery methodologies and analytical tools offering a highly customized user experience with lower fixed costs which has the potential to impact revenues and costs in certain areas of the Bank's businesses. In response to increased customer demands, needs and expectations, the Bank has embarked on a multi-year digital transformation with the aspiration to be a digital leader in the financial services industry. To support this strategy the Bank has opened digital factories in Toronto and its key international focus markets, in Mexico, Peru, Chile and Colombia to contribute to financial innovation, while continuing to monitor for evolving risks in new technology tools. Investments in agile, analytics and digital technology have supported the Banks' response to the pandemic, its shifting portfolio and addressing customer needs faster and with greater insight. The agile delivery methodology provides the process mechanisms to adapt to disruption events, conduct trade-off assessments and shift priorities and/or resources in a disciplined manner, which in turn supports resiliency in operating practices. To further support the Bank's digital strategy, in 2021 the Bank launched technology hubs in Ottawa and Vancouver to support the recruitment of diverse technology talent. Throughout the pandemic, the Bank has proven that it can be digital and provide leading customer experience.

Third party service providers

The Bank continues to enhance third party risk assessment and governance to ensure a solid risk management framework to support engagements with third party service providers. Regulatory maturation in third party and outsourcing management is introducing new areas of focus, including cloud technology, fourth parties, and operational resilience. This strengthened control environment adds to the Bank's heightened risk management practices to protect the Bank and its clients from supplier impacts on operations, privacy and reputation. Enhanced monitoring is in place across the enterprise to manage critical suppliers and to detect pandemic-related issues. The Bank continues to enhance the resources, capabilities and accountabilities of third party risk management areas within the first and second lines of defence.

Geopolitical risk

Geopolitical risks, including regional political volatility, may give rise to increased strategic and business risk for the Bank. Additionally, increased international collaboration on tax rates, as well as greater need for additional tax revenue to help fund local economic recovery efforts, could result in new tax reforms or revenue practices resulting in increased tax costs. Predicting where new geopolitical disruptions could occur or the economic consequences of such events is difficult; however, the Bank's stress testing program assists in evaluating the potential impact of severe conditions, whether where human induced or caused by other circumstances. Management's strong understanding of local political landscapes and the macroeconomic environments in which the Bank operates, combined with the Bank's business model and diversified geographic footprint, serve as ongoing mitigants to these risks.

Principal Risks – Financial

Credit Risk

Credit risk is the risk of loss resulting from the failure of a borrower or counterparty to honour its financial or contractual obligations to the Bank. Credit risk arises in the Bank's direct lending operations, and in its funding, investment and trading activities where counterparties have repayment or other obligations to the Bank.

Credit risk summary

- The Bank's overall loan book as of October 31, 2021 increased to $663 billion versus $625 billion as of October 31, 2020, with growth reflected in Personal, and Business and Government lending. Residential mortgages were $320 billion as of October 31, 2021, with 88% in Canada. The corporate loan book, which accounts for 36% of the total loan book, is composed of 57% of loans with an investment grade rating as of October 31, 2021, compared to 37% of the total loan book in October 31, 2020.
- Loans and acceptances (Personal, and Business and Government lending) remained diversified by region, industry and customer. Regional exposure is spread across our key markets (Canada 69%, United States 7%, Chile 7%, Mexico 5% and Other 12%). Financial Services constitutes 5% of overall gross exposures (before consideration of collateral) and was $34 billion, an increase of $4 billion from October 31, 2020. These exposures are predominately to highly rated counterparties and are generally collateralized.

The effective management of credit risk requires the establishment of an appropriate risk culture. Key credit risk policies and appetite statements are important elements used to create this culture.

The Board of Directors, either directly or through the Risk Committee (the Board), reviews and approves the Bank's Credit Risk Appetite limits annually and Credit Risk Policy limits biennially.

- The objectives of the Credit Risk Appetite are to ensure that:
  - target markets and product offerings are well defined at both the enterprise-wide and business line levels;
  - the risk parameters for new underwritings and for the portfolios as a whole are clearly specified; and
  - transactions, including origination, syndication, loan sales and hedging, are managed in a manner that is consistent with the Bank's risk appetite.
- The Credit Risk Policy articulates the credit risk management framework, including:
  - credit risk management policies;
  - delegation of authority;
  - the credit risk management program;
  - credit risk management for trading and investment activities; and
  - Single Name and Aggregate limits, beyond which credit applications must be escalated to the Board for approval.

GRM develops the credit risk management framework and policies that detail, among other things, the credit risk rating systems and associated parameter estimates; the delegation of authority for granting credit; the calculation of the allowance for credit losses; and the authorization of write-offs.

Corporate and commercial credit exposures are segmented by country and by major industry group. Aggregate credit risk limits for each of these segments are also reviewed and approved biennially by the Board. Portfolio management objectives and risk diversification are key factors in setting these limits.

Consistent with the Board-approved limits, borrower limits are set within the context of established lending criteria and guidelines for individual borrowers, particular industries, countries and certain types of lending, to ensure the Bank does not have excessive concentration in any single borrower, or related group of borrowers, particular industry sector or geographic region. Through the portfolio management process, loans may be syndicated to reduce overall exposure to a single name. For certain segments of the portfolio, credit derivative contracts are also used to mitigate the risk of loss due to borrower default. Risk is also mitigated through the selective sale of loans.

Banking units and GRM regularly review the various segments of the credit portfolio on an enterprise-wide basis to assess the impact of economic trends or specific events on the performance of the portfolio, and to determine whether corrective action is required. These reviews include the examination of the risk factors for particular products, industries and countries. The results of these reviews are reported to the Risk Policy Committee and, when significant, to the Board.

Risk measures

The Bank's credit risk rating systems support the determination of key credit risk parameter estimates (Probability of Default (PD), Loss-Given-Default (LGD) and Exposure at Default (EAD)) that are applicable to both Retail and Business Banking portfolios and are designed to measure credit risk. The parameters are an integral part of enterprise-wide policies and procedures encompassing governance, risk management, and control structure, and are used in various internal and regulatory credit risk quantification calculations.

The Bank's credit risk rating system is subject to a comprehensive validation, governance and oversight framework. The objectives of this framework are to ensure that:

- Credit risk rating methodologies and parameters are appropriately designed and developed, independently validated, and regularly reviewed; and
- The review and validation processes represent an effective challenge to the design and development process.

The Bank's credit risk rating methodologies and parameters are reviewed and validated at least annually. Units within GRM are responsible for design, and development of credit risk rating methodologies and parameters. Separate units within GRM are responsible for validation and review. The operation of these separate units are functionally independent from the business units responsible for originating exposures. Within GRM, these units are also independent from the units involved in risk rating approval and credit adjudication.

Business Banking credit risk ratings and associated risk parameters affect lending decisions, and loan pricing. Both Business Banking and Retail Banking's credit risk rating systems affect the computation of the allowance for credit losses, and regulatory capital.

Corporate and commercial

Corporate and commercial credit exposure arises in the Bank's business lines.

Risk ratings
The Bank's risk rating system utilizes internal grade (IG) ratings – a 17 point scale used to differentiate the risk of default of borrowers, and the risk of loss on facilities. The general relationship between the Bank's IG ratings and external agency ratings is shown in table T32.

IG ratings are also used to define credit adjudication authority levels appropriate to the size and risk of each credit application. Lower-rated credits require increasingly more senior management involvement depending upon the aggregate exposure. Where a credit exceeds the authority delegated to a credit unit, credit units will refer the request – with its recommendation – to a senior credit committee for adjudication. In certain cases, these must be referred to the Risk Committee of the Board of Directors.

Adjudication
Credit adjudication units within GRM analyze and evaluate all significant credit requests for corporate and commercial credit exposures, to ensure that risks are adequately assessed, properly approved, continually monitored and actively managed. The decision-making process begins with an assessment of the credit risk of the individual borrower or counterparty. Key factors considered in the assessment include:

- The borrower's management;
- The borrower's current and projected financial results and credit statistics;
- The industry in which the borrower operates;
- Economic trends; and
- Geopolitical risk.

Based on this assessment, a risk rating is assigned to the individual borrower or counterparty, using the Bank's risk rating systems.

A separate risk rating is also assigned at the facility level, taking into consideration additional factors, such as security, seniority of claim, structure, term and any other forms of credit risk mitigation that affect the amount of potential loss in the event of a default of the facility. Security typically takes the form of charges over inventory, receivables, real estate, and operating assets when lending to corporate and commercial borrowers; and cash or treasuries for trading lines such as securities lending, repurchase transactions, and derivatives. The types of acceptable collateral, and related valuation processes are documented in risk management policies and manuals.

Other forms of credit risk mitigation include third party guarantees and, in the case of derivatives facilities, master netting agreements.

Internal borrower and facility risk ratings are assigned when a facility is first authorized, and are promptlyre-evaluated and adjusted, if necessary, as a result of changes to the customer's financial condition or business prospects. Re-evaluation is an ongoing process, and is done in the context of general economic changes, specific industry prospects, and event risks, such as revised financial projections, interim financial results and extraordinary announcements.

The internal credit risk ratings are also considered as part of the Bank's adjudication limits, as guidelines for hold levels are tied to different risk ratings. Single borrower limits are much lower for higher risk borrowers than low risk borrowers.

The credit adjudication process also uses a risk-adjusted return on equity profitability model to ensure that the client and transaction structure offers an appropriate return for a given level of risk. For the corporate portfolio, and the large borrowers in International, the Loan Portfolio Management Group reviews the profitability model results, together with external benchmarks, and provides an opinion on the relative return and pricing of each transaction above a minimum threshold.

Individual credit exposures are regularly monitored by both the business line units and GRM for any signs of deterioration. In addition, the business line units and GRM conduct a review and risk analysis of each borrower annually, or more frequently for higher-risk borrowers. If, in the judgement of management, an account requires the expertise of specialists in workouts and restructurings, it will be transferred to a special accounts management group for monitoring and resolution.

Credit Risk Mitigation – Collateral/Security
Traditional Non-Retail Products (e.g. Operating lines of Credit, Term Loans)

Collateral values are accurately identified at the outset and throughout the tenure of a transaction by using standard evaluation methodologies. Collateral valuation estimates are conducted at a frequency that is appropriate to the frequency by which the market value fluctuates, using the collateral type and the borrower risk profile.

In addition, when it is not cost effective to monitor highly volatile collateral (e.g. accounts receivable, inventory), appropriate lending margins are applied to compensate (e.g. accounts receivable are capped at 80% of value, inventory at 50%). The frequency of collateral valuations is also increased when early warning signals of a borrower's deteriorating financial condition are identified.

Borrowers are required to confirm adherence to covenants including confirmation of collateral values on a periodic basis, which are used by the Bank to provide early warning signals of collateral value deterioration. Periodic inspections of physical collateral are performed where appropriate and where reasonable means of doing so are available.

Bank procedures require verification including certification by banking officers during initial, annual, and periodic reviews, that collateral values/margins/etc. have been assessed and, where necessary, steps have been taken to mitigate any decreased collateral values.

The Bank does not use automated valuation models (AVMs) for valuation purposes for traditional non-retail products. GRM performs its own valuations of companies based on various factors such as book value, discounted book value, enterprise value etc.

Commercial/Corporate Real Estate
New or updated appraisals are generally obtained at inception of a new facility, as well as during loan modifications, loan workouts and troubled debt restructure. The primary reason for requiring a new appraisal is if, in the reasonable opinion of the banking execution unit, or GRM, there has

been a material change in value. Additionally, none of the appraisal guidelines contained within the policies should dissuade the Bank from requesting an appraisal more frequently if an adverse change in market conditions, sponsorship, credit worthiness, or other underwriting assumptions is realized or expected.

Appraisals must be in writing and must contain sufficient information and analysis to support the Bank's decision to make the loan. Moreover, in rendering an opinion of the property's market value, third party appraisers are responsible for establishing the scope of work necessary to develop credible assignment results. The appraisal must meet the regulatory and industry requirements which, depending on the type of property being appraised, contain any or all of the following three approaches to value:

i. comparable sales approach
ii. replacement cost approach
iii. income approach

The appraiser must disclose the rationale for the omission of any valuation approach. Furthermore, the appraiser must disclose whether the subject property was physically inspected and whether anyone provided significant assistance to the person signing the appraisal report. The report must contain a presentation and explanation of the assumptions used in determining value under each of the above mentioned approaches.

Review of every appraisal is conducted by the banking units and GRM to confirm that the appraisal identifies all of the relevant issues for the specific asset class, location and economic environment and incorporates all appropriate valuation methodologies and assumptions. In most cases, the banking units also include comparable properties in addition to what is included in the appraisal to further justify value.

When third party assessors are used, they must be accredited and satisfactory to the Bank. In addition, GRM validates any third party valuations via internal desktop estimates either based on comparables or discounted income valuations.

Traded products

Traded products are transactions such as OTC derivatives (including foreign exchange and commodity based transactions), Securities Financing Transactions (including repurchase/reverse repurchase agreements, and securities lending/borrowing), and on-exchange futures. Credit risks arising from traded products cannot be determined with certainty at the outset, because during the tenure of a transaction the dollar value of the counterparty's obligation to the Bank will be affected by changes in the capital markets (such as changes in stock prices, interest rates, and exchange rates). The Bank adjudicates credit exposures arising from transacting in traded products by considering their current fair value plus an additional component to reflect potential future changes in their mark-to-market value. The credit adjudication process also includes an evaluation of potential wrong-way risk, which arises when the exposure to a counterparty is positively correlated to the probability of default of that counterparty.

Credit risk associated with traded products is managed within the same credit adjudication process as the lending business. The Bank considers the credit risk arising from lending activities, as well as the potential credit risk arising from transacting in traded products with that counterparty.

Credit risk mitigation – collateral/security

Derivatives are generally transacted under industry standard International Swaps and Derivatives Association (ISDA) master netting agreements, which allow for a single net settlement of all transactions covered by that agreement in the event of a default or early termination of the transactions. ISDA agreements are frequently accompanied by an ISDA Credit Support Annex (CSA), the terms of which may vary according to each party's view of the other party's creditworthiness. CSAs and regulation in some jurisdictions can require both parties to post initial margin (regulatory and non-regulatory). CSAs also allow for variation margin to be called if total uncollateralized mark-to-market exposure exceeds an agreed upon threshold. Such variation margin provisions can be one-way (only one party will ever post collateral) or bilateral (either party may post depending upon which party is in-the-money). The CSA will also detail the types of collateral that are acceptable to each party, and the haircuts that will be applied against each collateral type. The terms of the ISDA master netting agreements and CSAs are taken into consideration in the calculation of counterparty credit risk exposure.

For derivative transactions, investment grade counterparties account for approximately 84% (October 31, 2020 – 79%) of the credit risk. Approximately 29% (October 31, 2020 – 23%) of the Bank's derivative counterparty exposures are to bank counterparties. After taking into consideration, where applicable, netting and collateral arrangements, no net credit risk amount arising from traded products transactions with any single counterparty was considered material to the financial position of the Bank as at October 31, 2021. No individual exposure to an investment grade bilateral counterparty exceeded $1,068 million (October 31, 2020 – $1,181 million) and no individual exposure to a corporate counterparty exceeded $539 million (October 31, 2020 – $420 million).

Retail

Retail credit exposures arise in the Canadian Banking and International Banking business lines.

Adjudication

The decision-making process for retail loans ensures that credit risks are adequately assessed, properly approved, continually monitored and actively managed. Generally, credit decisions on consumer loans are processed by proprietary adjudication software and are based on risk ratings, which are generated using predictive credit scoring models.

The Bank's credit adjudication and portfolio management methodologies are designed to ensure consistent underwriting and early identification of problem loans in line with our risk appetite. The Bank's rigorous credit underwriting and retail risk modeling methodologies are more customer focused than product focused. The Bank's view is that a customer-centric approach provides better risk assessment than product-based approaches, a more consistent experience to the customer, and should result in lower loan losses over time.

All credit scoring and policy changes are initiated by units within GRM that are functionally independent from the business units responsible for retail portfolios. Risk models and parameters are also subject to independent validation and review from the units involved in the design and development of models. The review process includes referral to the appropriate Senior Credit Committee for approval, where required. Consumer credit portfolios are reviewed at least monthly to identify emerging trends in loan quality and to assess whether corrective action is required.

Risk ratings

The Bank's consumer risk rating systems are oriented to borrower or transaction risk. Each retail exposure is assigned a risk grade based on the customer's credit history and/or internal credit score. The Bank's automated risk rating systems assess the ongoing credit-worthiness of individual customers on a monthly basis. This process provides for meaningful and timely identification and management of problem loans.

The risk rating system under the AIRB approach is subject to regular review and ongoing performance monitoring of key components. Risk model validations are conducted independently from the areas responsible for rating system development and implementation, to ensure effective independence in design and performance review.

Customer behavior characteristics which are used as inputs within the Bank's Basel III AIRB models are consistent with those used by the Bank's Canadian consumer risk rating systems. The International portfolios are subject to the Standardized approach at this time.

Credit risk mitigation – collateral/security
The property values for residential real estate secured exposures are confirmed at origination through a variety of validation methodologies, including AVM and full appraisal's (in-person inspection). The appraisal is completed by a third party, Bank approved appraiser. For monitoring of material portfolios, property values are indexed quarterly to house prices. For loan impairment within material portfolios, residential property values are re-confirmed using third party AVM's.

Where AVM values are used, these AVM values are subject to routine validation through a continuous random sampling process that back-tests AVM values against available property appraisals (primarily third party AVMs). Where third party appraisals are obtained, the Bank relies on the professional industry accreditation of the appraiser. Samples of approved appraisal reports are reviewed by the Bank's senior appraisers to ensure consistent appraisal quality and satisfactory appraisal values. The third party appraisers are selected from a pre-approved list of Bank-vetted appraisers.

Credit Quality

IFRS 9 Financial Instruments requires the incorporation of past events, current conditions and reasonable and supportable forward-looking information over the life of existing exposures to measure expected credit losses. Furthermore, to assess significant increases in credit risk, IFRS 9 requires that entities assess changes in the risk of a default occurring over the expected life of a financial instrument when determining staging.

The Bank's models are calibrated to consider past performance and macroeconomic forward-looking variables as inputs in the framework described below. Expert credit judgement may be made in circumstances where, in the Bank's view, the inputs, assumptions, and/or modelling techniques do not capture all relevant risk factors. Expert credit judgement continues to be applied to consider the exceptional circumstances of COVID-19, including consideration of the significant government assistance programs, both domestically and internationally. Consistent with the requirements of IFRS 9, the Bank has considered both quantitative and qualitative information in the assessment of significant increase in risk.

The Bank generates a forward-looking base case scenario and three alternate forward-looking scenarios (one optimistic and two pessimistic) as key inputs into the expected credit loss provisioning models. Compared to the base case scenario, the recovery in the optimistic scenario is stronger, while in the pessimistic scenarios it is delayed. The pessimistic scenario featuring a W-shaped recovery includes a renewed virus wave impacting growth in late 2021 and into 2022. The more severe pessimistic front-loaded scenario, with an L-shaped recovery, also features a contraction in late 2021 with a subdued rebound delayed to late 2022.

While the base case scenario shows continued strong growth economy-wide, growth and employment in individual industries is expected to show considerable heterogeneity, many industries either have already fully recovered or are expected to fully recover to the pre-pandemic level, over the course of the next few quarters. In contrast, the activity in a few sectors is expected to remain below the pre-pandemic levels for some time despite strong growth. This industry-level pattern is referred to as a K-shaped recovery, and while not explicitly simulated in the base case scenario, it is incorporated through the consideration of significant increase in risk through expert credit judgement.

The table below shows a comparison of projections for the next 12 months, as at October 31, 2021, and October 31, 2020, of select macroeconomic variables that impact the expected credit loss calculations (see page 197 for all key variables):

T42 Select macroeconomic variable projections

	Base Case Scenario		Alternative Scenario - Optimistic		Alternative Scenario - Pessimistic		Alternative Scenario - Pessimistic Front Loaded	
Next 12 months	**As at October 31 2021**	As at October 31 2020	**As at October 31 2021**	As at October 31 2020	**As at October 31 2021**	As at October 31 2020	**As at October 31 2021**	As at October 31 2020
Canada								
Real GDP growth, y/y % change	**3.4**	3.1	**5.3**	4.7	**-1.3**	-2.0	**-7.4**	-10.8
Unemployment rate, average %	**6.3**	7.3	**5.6**	6.7	**8.8**	9.9	**11.7**	14.1
US								
Real GDP growth, y/y % change	**5.7**	2.5	**7.3**	3.6	**2.4**	-0.5	**-1.4**	-7.4
Unemployment rate, average %	**3.8**	6.3	**3.4**	6.1	**5.6**	8.1	**6.8**	10.5
Global								
WTI oil price, average USD/bbl	**69**	48	**75**	52	**61**	42	**57**	37

The table below shows a quarterly breakdown of the projections for the above macroeconomic variables, as at October 31, 2021 and October 31, 2020, under the base case scenario:

T43 Quarterly breakdown of macroeconomic variables

	Base Case Scenario									
	Calendar Quarters				Average	Calendar Quarters				Average
Next 12 months	Q4 2021	Q1 2022	Q2 2022	Q3 2022	October 31 2021	Q4 2020	Q1 2021	Q2 2021	Q3 2021	October 31 2020
Canada										
Real GDP growth, y/y % change	**3.1**	**2.6**	**3.9**	**4.1**	**3.4**	3.9	0.4	12.9	3.7	3.1
Unemployment rate, average %	**7.0**	**6.5**	**6.0**	**5.7**	**6.3**	8.1	7.1	6.9	6.9	7.3
US										
Real GDP growth, y/y % change	**6.7**	**6.3**	**5.5**	**4.2**	**5.7**	3.7	1.1	9.9	4.8	2.5
Unemployment rate, average %	**4.6**	**4.0**	**3.5**	**3.1**	**3.8**	7.7	6.6	5.8	5.4	6.3
Global										
WTI oil price, average USD/bbl	**70**	**69**	**69**	**69**	**69**	45	48	50	51	48

T44 Allowance for credit losses by business line

As at October 31 ($ millions)	2021	2020
Canadian Banking		
Retail	**$ 1,863**	$ 2,051
Commercial	**380**	558
	$ 2,243	$ 2,609
International Banking		
Retail		
Caribbean	**$ 524**	$ 716
Mexico	**474**	576
Peru	**538**	1,242
Chile	**541**	584
Colombia	**319**	638
Other	**81**	106
Commercial	**730**	860
	$ 3,207	$ 4,722
Global Wealth Management	**$ 21**	$ 19
Global Banking and Markets	**$ 155**	$ 289
Allowance for credit losses on loans	**$ 5,626**	$ 7,639
Allowance for credit losses on:		
Acceptances	**$ 37**	$ 77
Off-balance sheet exposures	**65**	101
Debt securities and deposits with financial institutions	**3**	3
Total Allowance for credit losses	**$ 5,731**	$ 7,820

Allowance for credit losses

The total allowance for credit losses as at October 31, 2021 was $5,731 million, compared to $7,820 million in the prior year. The allowance for credit losses for loans was $5,626 million, down $2,013 million from October 31, 2020. The decrease was due primarily to lower loan provisions for performing loans, and the favourable impact of foreign currency translation.

The allowance for credit losses against performing loans was $3,971 million compared to $5,682 million as at October 31, 2020. The decrease was due primarily to lower performing loan provisions, driven by credit migration to impaired and higher write-offs related to the International Banking retail portfolio, reversals due to the more favourable macroeconomic outlook, and the impact of foreign currency translation.

The allowance for credit losses on impaired loans decreased to $1,655 million from $1,957 million as at October 31, 2020 (refer to T45). The decrease was due primarily to higher write-offs and lower formations related to the International Banking retail portfolio, and the favourable impact of foreign currency translation.

The allowance for credit losses on impaired loans in Canadian Banking decreased by $39 million to $436 million, due primarily to lower retail and commercial loan provisions (refer to T45). In International Banking, the allowance for credit losses on impaired loans decreased by $242 million to $1,171 million, due primarily to higher write-offs and lower formations related to the retail portfolio, as well as the favourable impact of foreign currency translation. In Global Banking and Markets, the allowance for credit loss for impaired loans decreased by $22 million to $39 million, due primarily to higher write-offs and lower formations.

T45 Impaired loans by business line

As at October 31 ($ millions)	2021 Gross impaired loans	2021 Allowance for credit losses	2021 Net impaired loans	2020 Gross impaired loans	2020 Allowance for credit losses	2020 Net impaired loans
Canadian Banking						
Retail	**$ 614**	**$ 300**	**$ 314**	$ 707	$ 326	$ 381
Commercial	**327**	**136**	**191**	342	149	193
	$ 941	**$ 436**	**$ 505**	$ 1,049	$ 475	$ 574
International Banking						
Caribbean and Central America	**$ 744**	**$ 200**	**$ 544**	$ 878	$ 254	$ 624
Latin America						
Mexico	**758**	**269**	**489**	570	222	348
Peru	**694**	**347**	**347**	824	498	326
Chile	**512**	**180**	**332**	775	233	542
Colombia	**418**	**88**	**330**	459	102	357
Other Latin America	**144**	**87**	**57**	170	104	66
Total Latin America	**2,526**	**971**	**1,555**	2,798	1,159	1,639
	$ 3,270	**$ 1,171**	**$ 2,099**	$ 3,676	$ 1,413	$ 2,263
Global Wealth Management	**$ 26**	**$ 9**	**$ 17**	$ 26	$ 8	$ 18
Global Banking and Markets						
Canada	**$ 134**	**$ 7**	**$ 127**	$ 57	$ 5	$ 52
U.S.	**24**	**4**	**20**	116	4	112
Asia and Europe	**61**	**28**	**33**	129	52	77
	$ 219	**$ 39**	**$ 180**	$ 302	$ 61	$ 241
Totals	**$ 4,456**	**$ 1,655**	**$ 2,801**	$ 5,053	$ 1,957	$ 3,096

Impaired loan metrics

As at October 31 ($ millions)	Net impaired loans 2021	Net impaired loans 2020
Net impaired loans as a % of loans and acceptances (1)	**0.42%**	0.50%
Allowance against impaired loans as a % of gross impaired loans (1)	**37%**	39%

(1) Refer to Glossary on page 141 for the description of the measure.

Impaired loans

Gross impaired loans decreased to $4,456 million as at October 31, 2021, from $5,053 million last year (refer to T70). The decrease was due primarily to the impact of foreign currency translation.

Impaired loans in Canadian Banking decreased by $108 million, due primarily to write-offs in Retail Banking, and lower formations. In International Banking, impaired loans decreased by $406 million, due primarily to the impact of foreign currency translation, write-offs and lower formations in the retail portfolio. Impaired loans in Global Banking and Markets decreased by $83 million, due primarily to write-offs and lower formations. Impaired loans in Global Wealth Management are unchanged from last year. The gross impaired loan ratio was 67 basis points as at October 31, 2021, a decrease of 14 basis points.

Net impaired loans, after deducting the allowance for credit losses, were $2,801 million as at October 31, 2021, a decrease of $295 million from the prior year. Net impaired loans as a percentage of loans and acceptances were 0.42% as at October 31, 2021, a decrease of eight basis points from 0.50% last year.

Portfolio review

Canadian Banking

Gross impaired loans in the retail portfolio decreased by $93 million or 13% from last year, due primarily to write-offs and lower formations. The allowance for credit losses on impaired loans in the retail portfolio was $300 million, down $26 million or 8% from last year due to higher write-offs and lower formations.

In the commercial loan portfolio, gross impaired loans decreased by $15 million to $327 million due to lower formations. The allowance for credit losses on impaired loans was $136 million, down $13 million or 9% from last year.

International Banking

In the retail portfolio, gross impaired loans decreased by $262 million to $1,537 million, due primarily to the impact of foreign currency translation, write-offs and lower formations. The allowance for credit losses on impaired loans in the retail portfolio was $697 million, down $186 million or 21% from last year, due primarily to the impact of foreign currency translation and higher write-offs.

In the commercial portfolio, gross impaired loans were $1,733 million, a decrease of $144 million over the last year, due primarily to the impact of foreign currency translation. The allowance for credit losses on impaired loans was $474 million, down $56 million or 11% from last year, due primarily to the impact of foreign currency translation.

Global Wealth Management

Gross impaired loans in Global Wealth Management were $26 million, unchanged from last year. The allowance for credit losses on impaired loans was $9 million, up $1 million from last year.

Global Banking and Markets

Gross impaired loans in Global Banking and Markets decreased by $83 million to $219 million, due primarily to write-offs and lower formations. The allowance for credit losses on impaired loans was $39 million, down $22 million or 36% from last year, due primarily to write-offs and lower formations.

Risk diversification

The Bank's exposure to various countries and types of borrowers are well diversified (see T64 and T68). Chart C27 shows loans and acceptances by geography. Ontario represents the largest Canadian exposure at 37% of the total. Latin America was 18% of the total exposure and the U.S. was 7%.

Chart C28 shows loans and acceptances by type of borrower (see T68). Excluding loans to households, the largest industry exposures were financial services (5% including banks and non-banks), real estate and construction (7%), wholesale and retail (4%), and utilities (3%).

Risk mitigation

To mitigate exposures in its performing corporate portfolios, the Bank uses diversification by company, industry, and country, with loan sales and credit derivatives used sparingly. In 2021, loan sales totaled $124 million, compared to $724 million in 2020. The largest volume of loan sales in 2021 related to loans in the energy industry. As at October 31, 2021, no credit derivatives were used to mitigate loan exposures in the portfolios (October 31, 2020 – nil). The Bank actively monitors industry and country concentrations. As is the case with all industry exposures, the Bank continues to closely follow developing trends and takes additional steps to mitigate risk as warranted.

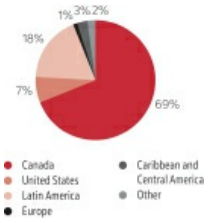
Overview of loan portfolio

The Bank has a well-diversified portfolio by product, business and geography. Details of certain portfolios of current focus are highlighted below.

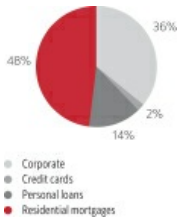
Real estate secured lending

A large portion of the Bank's lending portfolio is comprised of residential mortgages and consumer loans, which are well diversified by borrower. As at October 31, 2021, these loans accounted for $424 billion or 64% of the Bank's total loans and acceptances outstanding (October 31, 2020 – $393 billion or 63%). Of these, $340 billion or 80% are real estate secured loans (October 31, 2020 – $306 billion or 78%). The tables below provide more details by portfolios.

C27 Well diversified in Canada and internationally... loans and acceptances, October 2021



C28 ... and in household and business lending loans and acceptances, October 2021



Insured and uninsured residential mortgages and home equity lines of credit

The following table presents amounts of insured and uninsured residential mortgages and home equity lines of credit (HELOCs), by geographic area.

T46 Insured and uninsured residential mortgages and HELOCs, by geographic areas (1)

	2021											
	Residential mortgages						Home equity lines of credit					
As at October 31	Insured (2)		Uninsured		Total		Insured (2)		Uninsured		Total	
($ millions)	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Canada:(3)												
Atlantic provinces	$ 5,344	1.9	$ 6,194	2.2	$ 11,538	4.1	$ –	–	$ 1,033	5.1	$ 1,033	5.1
Quebec	8,136	2.9	10,900	3.9	19,036	6.8	–	–	964	4.7	964	4.7
Ontario	37,014	13.2	114,688	40.9	151,702	54.1	–	–	11,445	55.9	11,445	55.9
Manitoba & Saskatchewan	5,585	2.0	4,807	1.7	10,392	3.7	–	–	659	3.2	659	3.2
Alberta	17,769	6.3	14,918	5.4	32,687	11.7	–	–	2,574	12.6	2,574	12.6
British Columbia & Territories	12,538	4.5	42,276	15.1	54,814	19.6	–	–	3,789	18.5	3,789	18.5
Canada(4)	$86,386	30.8%	$193,783	69.2%	$280,169	100%	$ –	–%	$20,464	100%	$20,464	100%
International	–	–	39,509	100	39,509	100	–	–	–	–	–	–
Total	$86,386	27.0%	$233,292	73.0%	$319,678	100%	$ –	–%	$20,464	100%	$20,464	100%
						2020						
Canada(4)	$93,684	38.2%	$151,360	61.8%	$245,044	100%	$ 1	–%	$20,978	100%	$20,979	100%
International	–	–	39,640	100	39,640	100	–	–	–	–	–	–
Total	$93,684	32.9%	$191,000	67.1%	$284,684	100%	$ 1	–%	$20,978	100%	$20,979	100%

(1) The measures in this section have been disclosed in this document in accordance with OSFI Guideline – B20 - Residential Mortgage Underwriting Practices and Procedures (January 2018).
(2) Default insurance is contractual coverage for the life of eligible facilities whereby the Bank's exposure to real estate secured lending is protected against potential shortfalls caused by borrower default. This insurance is provided by either government-backed entities or private mortgage insurers.
(3) The province represents the location of the property in Canada.
(4) Includes multi-residential dwellings (4+ units) of $3,783 (October 31, 2020 – $3,671) of which $2,793 are insured (October 31, 2020 – $2,630).

Amortization period ranges for residential mortgages

The following table presents the distribution of residential mortgages by remaining amortization periods, and by geographic areas.

T47 Distribution of residential mortgages by remaining amortization periods, and by geographic areas (1)

	2021					
	Residential mortgages by remaining amortization periods					
As at October 31	Less than 20 years	20-24 years	25-29 years	30-34 years	35 years and greater	Total residential mortgage
Canada	29.9%	38.5%	30.1%	1.3%	0.2%	100%
International	62.7%	17.4%	15.6%	4.3%	–%	100%
				2020		
Canada	33.5%	37.5%	27.6%	1.2%	0.2%	100%
International	64.9%	17.4%	14.4%	3.2%	0.1%	100%

(1) The measures in this section have been disclosed in this document in accordance with OSFI Guideline – B20 - Residential Mortgage Underwriting Practices and Procedures (January 2018).

Loan to value ratios

The Canadian residential mortgage portfolio is 69% uninsured (October 31, 2020 – 62%). The average loan-to-value (LTV) ratio of the uninsured portfolio is 49% (October 31, 2020 – 52%).

The following table presents the weighted average LTV ratio for total newly originated uninsured residential mortgages and home equity lines of credit during the year, which include mortgages for purchases, refinances with a request for additional funds and transfers from other financial institutions, by geographic areas.

T48 Loan to value ratios(1)

	Uninsured LTV ratios(2)	
	For the year ended October 31, 2021	
	Residential mortgages LTV%	Home equity lines of credit(3) LTV%
Canada:		
Atlantic provinces	**67.7%**	**62.8%**
Quebec	**66.3**	**71.0**
Ontario	**64.3**	**63.6**
Manitoba & Saskatchewan	**70.0**	**63.1**
Alberta	**69.1**	**72.2**
British Columbia & Territories	**64.8**	**63.3**
Canada	**65.0%**	**64.4%**
International	**73.3%**	**n/a**
	For the year ended October 31, 2020	
Canada	64.6%	64.2%
International	73.2%	n/a

(1) The measures in this section have been disclosed in this document in accordance with OSFI Guideline – B20 - Residential Mortgage Underwriting Practices and Procedures (January 2018).
(2) The province represents the location of the property in Canada.
(3) Includes all HELOCs. For Scotia Total Equity Plan HELOC's, LTV is calculated based on the sum of residential mortgages and the authorized limit for related HELOCs, divided by the value of the related residential property, and presented on a weighted average basis for newly originated mortgages and HELOCs.

Potential impact on residential mortgages and real estate home equity lines of credit in the event of an economic downturn

The Bank undertakes regular stress testing of its mortgage book to determine the impact of various combinations of home price declines and unemployment increases. Those results continue to show that credit losses and impacts on capital ratios are within a level the Bank considers manageable. In addition, the Bank has undertaken extensive all-Bank scenario analyses to assess the impact to the enterprise of different scenarios related to COVID-19 and is confident that it has the financial resources to withstand even a very negative outlook. In practice, the mortgage portfolio is robust to such scenarios due to the low LTV of the book, the high proportion of insured exposures and the diversified composition of the portfolio.

Loans to Canadian condominium developers

The Bank had loans outstanding to Canadian condominium developers of $1,775 million as at October 31, 2021 (October 31, 2020 – $1,447 million). This is a high quality portfolio with well-known developers who have long-term relationships with the Bank.

European exposures

The Bank believes that its European exposures are manageable, are sized appropriately relative to the credit worthiness of the counterparties (94% of the exposures are to investment grade counterparties based on a combination of internal and external ratings), and are modest relative to the capital levels of the Bank. The Bank's European exposures are certified at amortized cost or fair value using observable inputs, with negligible amounts valued using models with unobservable inputs (Level 3). There were no significant events during the year that materially impacted the Bank's exposures.

The Bank's exposure to sovereigns was $12.1 billion as at October 31, 2021 (October 31, 2020 – $12.6 billion), $3.9 billion to banks (October 31, 2020 – $4.4 billion) and $14.2 billion to corporates (October 31, 2020 – $14.6 billion).

In addition to exposures detailed in the table below, the Bank had indirect exposures consisting of securities exposures to non-European entities whose parent company is domiciled in Europe of $0.2 billion as at October 31, 2021 (October 31, 2020 – $0.3 billion).

The Bank's current European exposure is distributed as follows:

T49 Bank's exposure distribution by country

As at October 31	2021							2020
($ millions)	Loans and loan equivalents[1]	Deposits with financial institutions	Securities[2]	SFT and derivatives[3]	Funded Total	Undrawn Commitments[4]	Total	Total
Greece	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ –
Ireland	846	613	21	280	1,760	702	2,462	2,608
Italy	6	–	(3)	8	11	186	197	322
Portugal	–	–	–	1	1	–	1	3
Spain	849	2	72	40	963	516	1,479	1,390
Total GIIPS	$ 1,701	$ 615	$ 90	$ 329	$ 2,735	$ 1,404	$ 4,139	$ 4,323
U.K.	$ 7,454	$ 5,372	$ 958	$ 2,535	$ 16,319	$ 6,745	$ 23,064	$ 30,772
Germany	313	77	1,936	80	2,406	1,004	3,410	3,559
France	979	47	860	64	1,950	1,901	3,851	4,168
Netherlands	520	129	883	341	1,873	953	2,826	3,106
Switzerland	874	20	5	118	1,017	1,041	2,058	2,018
Other	773	504	2,159	440	3,876	2,202	6,078	6,385
Total Non-GIIPS	$ 10,913	$ 6,149	$ 6,801	$ 3,578	$ 27,441	$ 13,846	$ 41,287	$ 50,008
Total Europe	$ 12,614	$ 6,764	$ 6,891	$ 3,907	$ 30,176	$ 15,250	$ 45,426	$ 54,331
As at October 31, 2020	$ 13,907	$ 7,049	$ 6,945	$ 3,764	$ 31,665	$ 22,666	$ 54,331	

(1) Individual allowances for credit losses are $1. Letters of credit and guarantees are included as funded exposure as they have been issued. Included in loans and loans equivalent are letters of credit and guarantees which total $3,525 as at October 31, 2021 (October 31, 2020 – $4,069).
(2) Exposures for securities are calculated taking into account derivative positions where the security is the underlying reference asset and short trading positions, with net short positions in brackets.
(3) SFT comprise of securities purchased under resale agreements, obligations related to securities sold under repurchase agreements and securities lending and borrowing transactions. Gross and net funded exposures represent all net positive positions after taking into account collateral. Collateral held against derivatives was $4,326 and collateral held against SFT was $35,269.
(4) Undrawn commitments represent an estimate of the contractual amount that may be drawn upon by the obligor and include commitments to issue letters of credit on behalf of other banks in a syndicated bank lending arrangement.

Market Risk

Market risk is the risk of loss from changes in market prices and rates (including interest rates, credit spreads, equity prices, foreign exchange rates and commodity prices), the correlations between them, and their levels of volatility. Market risk includes trading risk, investment risk, structural interest rate risk and structural foreign exchange risk. Below is an index of market risk disclosures:

Market risk factors

Interest rate risk

The risk of loss due to changes in the level and/or the volatility of interest rates. This risk affects instruments such as, but not limited to, debt securities, loans, mortgages, deposits and derivatives.

Interest rate risks are managed through sensitivity analysis (including economic value of equity and net interest income), stress testing, and VaR limits and mitigated through portfolio diversification and hedges using interest rate derivatives and debt securities.

Credit spread risk

The risk of loss due to changes in the market price and volatility of credit, or the creditworthiness of issuers. This risk is mainly concentrated in loan and debt securities portfolios. Risk is managed through sensitivity, jump-to-default, stress testing and VaR limits and mitigated through hedges using credit derivatives.

Foreign currency risk

The risk of loss resulting from changes in currency exchange rates and exchange rate volatility. Foreign currency denominated debt and other securities as well as future cash flows in foreign currencies are exposed to this type of risk. Risk is managed through maximum net trading position, sensitivity, stress testing and VaR limits and mitigated through hedges using foreign exchange positions and derivatives.

Equity risk

The risk of loss due to changes in prices, volatility or any other equity related risk factor of individual equity or equity linked securities. This risk affects instruments such as, but not limited to, equities, exchange traded funds, mutual funds, derivatives and other equity linked products. Risk is managed through sensitivity, stress testing and VaR limits and mitigated through hedges using physical equity and derivatives instruments.

Commodity risk

The risk of loss due to changes in prices or volatility of precious metal, base metal, energy and agriculture products. Both physical commodity and derivatives positions are exposed to this risk. Risk is managed through aggregate and net trading position, sensitivity, stress testing and VaR limits and mitigated through hedges using physical commodity and derivative positions.

The following maps risk factors to trading and non-trading activities:

Non-trading Funding	Investments	Trading
Interest rate risk	Interest rate risk	Interest rate risk
Foreign currency risk	Credit spread risk	Credit spread risk
	Foreign currency risk	Foreign currency risk
	Equity risk	Equity risk
		Commodity risk

Market risk governance

Overview

The Board of Directors reviews and approves market risk policies and limits annually. The Bank's Asset-Liability Committee (ALCO) and Market Risk Management and Policy Committee (MRMPC) oversee the application of the framework set by the Board, and monitor the Bank's market risk exposures and the activities that give rise to these exposures. The MRMPC establishes specific operating policies and sets limits at the product, portfolio, business unit and business line levels, and for the Bank in total. Limits are reviewed at least annually.

Global Risk Management provides independent oversight of all significant market risks, supporting the MRMPC and ALCO with analysis, risk measurement, monitoring, reporting, proposals for standards and support for new product development. To ensure compliance with policies and limits, market risk exposures are independently monitored on a continuing basis, either by Global Risk Management, the back offices, or Finance. They provide senior management, business units, the ALCO, and the MRMPC with a series of daily, weekly and monthly reports of market risk exposures by business line and risk type.

The Bank uses a variety of metrics and models to measure and control market risk exposures. These measurements are selected based on an assessment of the nature of risks in a particular activity. The principal measurement techniques are Value at Risk (VaR), Incremental Risk Charge, stress testing, and sensitivity analysis. The use and attributes of each of these techniques are noted in the Risk Measurement Summary.

Risk measurement summary

Value at risk (VaR)

VaR is a statistical method of measuring potential loss due to market risk based upon a common confidence interval and time horizon. The Bank calculates VaR daily using a 99% confidence level, and a one-day holding period for its trading portfolios. This means that once in every 100 days, the trading positions are expected to lose more than the VaR estimate. VaR has two components: general market risk and debt specific risk. The Bank calculates general market risk VaR using historical simulation based on 300 days of market data. Obligor specific risk on debt instruments and credit derivatives not captured in general market risk VaR is calculated through the debt specific risk VaR, which uses historical resampling. In addition, the Bank calculates a Stressed VaR measure which follows the same basic methodology as VaR but is calibrated to a one year stressed period. The stressed period is determined based on analysis of the trading book's risk profile against historical market data. Stressed VaR complements VaR in that it evaluates the impact of market volatility that is outside the VaR's historical set.

All material risk factors are captured in VaR. Where historical data is not available, proxies are used to establish the relevant volatility for VaR and Stressed VaR until sufficient data is available. Changes in VaR between reporting periods are generally due to changes in positions, volatilities and/or correlations between asset classes. VaR is also used to evaluate risks arising in certain funding and investment portfolios. Backtesting is also an important and necessary part of the VaR process. The Bank backtests the actual trading profit and loss against the VaR result to validate the quality and accuracy of the Bank's VaR model. The Board reviews VaR results quarterly.

Incremental Risk Charge (IRC)
Basel market risk capital requirements includes IRC which captures the following:

Default risk: This is the potential for direct losses due to an obligor's (bond issuer or counterparty) default.

Credit migration risk: This is the potential for direct losses due to a credit rating downgrade or upgrade.

A Monte Carlo model is used to perform default and migration simulations for the obligors underlying credit derivative and bond portfolios. IRC is calculated at the 99.9th percentile with a one year liquidity horizon. The Board reviews IRC results quarterly.

Stress testing
A limitation of VaR and Stressed VaR is that they only reflect the recent history of market volatility and a specific one year stressed period, respectively. To complement these measures, stress testing examines the impact that abnormally large changes in market factors and periods of prolonged inactivity might have on trading portfolios. Stress testing scenarios are designed to include large shifts in risk factors as well as historical and theoretical multi risk market events. Historical scenarios capture severe movements over periods that are significantly longer than the one-day holding period captured in VaR, such as the 2008 Credit Crisis or the 1998 Russian Financial Crisis. Similar to Stressed VaR, stress testing provides management with information on potential losses due to tail events. In addition, the results from the stress testing program are used to verify that the Bank's market risk capital is sufficient to absorb these potential losses.

The Bank subjects its trading portfolios to a series of daily, weekly and monthly stress tests. The Bank also evaluates risk in its investment portfolios monthly, using stress tests based on risk factor sensitivities and specific market events. The stress testing program is an essential component of the Bank's comprehensive risk management framework which complements the VaR methodology and other risk measures and controls employed by the Bank.

Sensitivity analysis
In trading portfolios, sensitivity analysis is used to measure the effect of changes in risk factors, including prices and volatility, on financial products and portfolios. These measures apply across product types and geographies and are used for limit monitoring and management reporting.

In non-trading portfolios, sensitivity analysis assesses the effect of changes in interest rates on current earnings and on the economic value of shareholders' equity. It is applied globally to each of the major currencies within the Bank's operations. The Bank's sensitivity analysis for limit and disclosure purposes is measured through positive and negative parallel shifts in the underlying interest rate curves. These calculations are based on models that consider a number of inputs and are on a constant balance sheet and make no assumptions for management actions that may mitigate the risks. The Bank also performs sensitivity analysis using various non-parallel interest rate curve shifts, for example: curve steepeners, curve flatteners and curve twists.

Validation of market risk models

Prior to the implementation of new market risk models, rigorous validation and testing is conducted. Validation is conducted when the model is initially developed and when any significant changes are made to the model. The models are also subject to ongoing validation, the frequency of which is determined by model risk ratings. Models may also be triggered for earlier revalidation when there have been significant structural changes in the market or changes to the composition of the portfolio. Model validation includes backtesting, and additional analysis such as:

- Theoretical review or tests to demonstrate whether assumptions made within the internal model are appropriate; and
- Impact tests including stress testing that would occur under historical and hypothetical market conditions.

The validation process is governed by the Bank's Model Risk Management Policy.

Non-trading market risk

Funding and investment activities

Market risk arising from the Bank's funding and investment activities is identified, managed and controlled through the Bank's asset-liability management processes. The Asset-Liability Committee meets monthly to review risks and opportunities, and evaluate performance including the effectiveness of hedging strategies.

Interest rate risk
Interest rate risk arising from the Bank's lending, funding and investment activities is managed in accordance with Board-approved policies and global limits, which are designed to control the risk to net interest income and economic value of shareholders' equity. The net interest income limit measures the effect of a specified change in interest rates on the Bank's annual net interest income over the next twelve months, while the economic value limit measures the impact of a specified change in interest rates on the present value of the Bank's net assets. These limits are set according to the documented risk appetite of the Bank. Board-level limit utilization is reported to both the Asset-Liability Committee and the Board on a regular basis. Any limit exceptions are reported according to the Limit Monitoring and Compliance Policy of the Bank.

Net interest income and the economic value of equity result from the differences between yields earned on the Bank'snon-trading assets and interest rate paid on its liabilities. The difference in yields partly reflects mismatch between the maturity and re-pricing characteristics of the assets and liabilities. This mismatch is inherent in the non-trading operations of the Bank and exposes it to adverse changes in the level of interest rates. The Asset-Liability Committee provides strategic direction for the management of structural interest rate risk within the risk appetite framework authorized by the Board of Directors. The asset/liability management strategy is executed by Group Treasury with the objective of protecting and enhancing net interest income within established risk tolerances.

Simulation modeling, sensitivity analysis and VaR are used to assess exposures and for limit monitoring and planning purposes. The Bank's interest rate risk exposure calculations are generally based on the earlier of contractual re-pricing or maturity of on-balance sheet and off-balance sheet assets and liabilities, although certain assets and liabilities such as credit cards and deposits without a fixed maturity are assigned a maturity profile based on the longevity of the exposure. Expected prepayments from loans and cashable investment products are also incorporated into the exposure calculations.

Table T50 shows the pro-forma after-tax impact on the Bank's net interest income over the next twelve months and economic value of shareholders' equity of an immediate and sustained 100 basis points increase and 25 basis points decrease in interest rate across major currencies as defined by the Bank. The interest rate sensitivities tabulated are based on models that consider a number of inputs and are on a constant balance sheet. There are no assumptions made for management actions that may mitigate risk. Based on the Bank's interest rate positions at year-end 2021, an immediate and sustained 100 basis point increase in interest rates across all major currencies and maturities would increase after-tax net interest income by approximately $157 million over the next 12 months, assuming no further management actions. During fiscal 2021, this measure ranged between $157 million and $321 million. Corresponding with the current low interest rate environment, starting in Q2, 2020, the net interest income and economic value for a downward shock scenario are measured using 25 basis points decline rather than 100 basis points previously, to account for certain rates being floored at zero.

This same increase in interest rates would result in an after-tax decrease in the present value of the Bank's net assets of approximately $866 million. During fiscal 2021, this measure ranged between increase of $19 million and decrease of $866 million. The directional sensitivity of these two key metrics is largely determined by the difference in time horizons (net interest income captures the impact over the next twelve months only, whereas economic value considers the potential impact of interest rate changes on the present value of all future cash flows). The net interest income and economic value results are compared to the authorized Board limits. Both interest rate sensitivities remained within the Bank's approved consolidated limits in the reporting period.

T50 Structural interest sensitivity

	2021		2020	
As at October 31 ($ millions)	**Economic Value of Shareholders' Equity**	**Net Interest Income**	Economic Value of Shareholders' Equity	Net Interest Income
After-tax impact of				
100bp increase in rates				
Non-trading risk	**$ (866)**	**$ 157**	$ (510)	$ 134
25bp decrease in rates				
Non-trading risk	**$ 154**	**$ (47)**	$ 63	$ (38)

Foreign currency risk

Foreign currency risk in the Bank's unhedged funding and investment activities arises primarily from the Bank's net investments in foreign operations as well as foreign currency earnings in its domestic and remitting foreign branch operations.

The Bank's foreign currency exposure to its net investments in foreign operations is controlled by a Board-approved limit. This limit considers factors such as potential volatility to shareholders' equity as well as the potential impact on capital ratios from foreign exchange fluctuations. On a monthly basis, the Asset-Liability Committee reviews the Bank's foreign currency net investment exposures and determines the appropriate hedging strategies. These may include funding the investments in the same currency or using other financial instruments, including derivatives.

Foreign currency translation gains and losses from net investments in foreign operations, net of related hedging activities and tax effects, are recorded in accumulated other comprehensive income within shareholders' equity. However, the Bank's regulatory capital ratios are not materially affected by these foreign exchange fluctuations because the risk-weighted assets of the foreign operations tend to move in a similar direction.

The Bank is also subject to foreign currency translation risk on the earnings of its domestic and remitting foreign branch operations. The Bank forecasts foreign currency revenues and expenses, over a number of future fiscal quarters. The Asset-Liability Committee also assesses economic data trends and forecasts to determine if some or all of the estimated future foreign currency revenues and expenses should be hedged. Hedging instruments normally include foreign currency spot and forward contracts, as well as foreign currency options and swaps. Certain of these economic hedges may not qualify for hedge accounting resulting in a potential for a mismatch in the timing of the recognition of economic hedge gains/losses and the underlying foreign earnings translation gains/losses. In accordance with IFRS, foreign currency translation gains and losses relating to monetary and non-monetary items are recorded directly in earnings.

As at October 31, 2021, a one percent increase (decrease) in the Canadian dollar against all currencies in which the Bank operates decreases (increases) the Bank's before-tax annual earnings by approximately $61 million (October 31, 2020 – $66 million) in the absence of hedging activity, primarily from the exposure to U.S. dollars.

Investment portfolio risks

The Bank holds investment portfolios to meet liquidity and statutory reserve requirements and for investment purposes. These portfolios expose the Bank to interest rate, foreign currency, credit spread and equity risks. Debt investments primarily consist of government, agency, and corporate bonds. Equity investments include common and preferred shares, as well as a diversified portfolio of third-party managed funds. The majority of these securities are valued using prices obtained from external sources. These portfolios are controlled by a Board-approved policy and limits.

Trading market risk

The Bank's policies, processes and controls for trading activities are designed to achieve a balance between pursuing profitable trading opportunities and managing earnings volatility within a framework of sound and prudent practices. Trading activities are primarily customer focused.

Market risk arising from the Bank's trading activities is managed in accordance with Board-approved policies, and aggregate VaR and stress testing limits. The quality of the Bank's VaR is validated by regular backtesting analysis, in which the VaR is compared to both theoretical profit and loss results based on fixed end of day positions and actual reported profit and loss. A VaR at the 99% confidence interval is an indication of a 1% probability that losses will exceed the VaR if positions remain unchanged during the next business day. Trading positions are however managed dynamically and, as a result, actual profit/loss backtesting exceptions are not uncommon.

In fiscal 2021, the total one-day VaR for trading activities averaged $14.1 million, compared to $23.9 million in 2020. The decrease of average one-day VaR was due to improved market conditions as economies gradually recover from the COVID-19 crisis.

T51 Market risk measures

	2021				2020			
($ millions)	Year end	Avg	High	Low	Year end	Avg	High	Low
Credit Spread plus Interest Rate	**$ 10.3**	**$ 11.9**	**$ 23.2**	**$ 4.5**	$ 11.5	$ 22.1	$ 60.8	$ 9.4
Credit Spread	**2.0**	**5.4**	**12.7**	**0.5**	11.1	18.5	55.0	6.2
Interest Rate	**11.5**	**12.2**	**22.0**	**4.6**	11.4	11.2	18.0	4.8
Equities	**6.7**	**5.9**	**20.8**	**2.2**	3.1	6.5	27.4	1.8
Foreign Exchange	**2.0**	**2.7**	**5.7**	**1.4**	4.6	3.5	10.3	1.4
Commodities	**1.3**	**3.9**	**8.7**	**1.0**	5.0	5.4	9.1	2.2
Debt Specific	**1.5**	**2.8**	**5.1**	**1.5**	5.2	5.9	14.1	2.5
Diversification Effect	**(8.6)**	**(13.1)**	**n/a**	**n/a**	(14.8)	(19.5)	n/a	n/a
All-Bank VaR	**$ 13.2**	**$ 14.1**	**$ 32.8**	**$ 7.9**	$ 14.6	$ 23.9	$ 63.6	$ 10.1
All-Bank Stressed VaR	**$ 36.1**	**$ 36.2**	**$ 50.5**	**$ 22.0**	$ 37.0	$ 38.7	$ 61.3	$ 14.9
Incremental Risk Charge	**$ 159.5**	**$ 152.8**	**$ 295.0**	**$ 112.8**	$ 233.2	$ 197.3	$ 334.9	$ 78.2

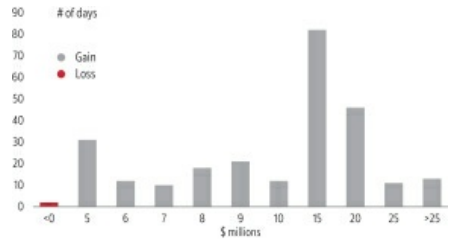
The Bank also calculates a Stressed VaR which uses the same basic methodology as the VaR. However, Stressed VaR is calculated using market volatility from a one-year time period identified as stressful, given the risk profile of the trading portfolio. Throughout 2021, the Stressed VaR was calculated using the 2008/2009 credit crisis period, surrounding the collapse of Lehman Brothers. In fiscal 2021, the total one-day Stressed VaR for trading activities averaged $36.2 million compared to $38.7 million in 2020.

In fiscal 2021, the average IRC decreased to $152.8 million from $197.3 million in 2020. The lower IRC utilization was also due to economy recovery.

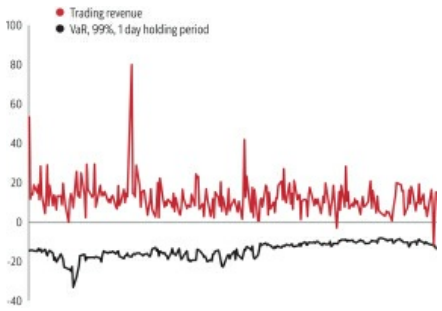
Description of trading revenue components and graphical comparison of VaR to daily P&L

Chart C29 shows the distribution of daily trading revenue for fiscal 2021 and Chart C30 compares that distribution to daily VaR results. Trading revenue includes changes in portfolio value as well as the impact of new trades, commissions, fees and reserves. Some components of revenue which are calculated less frequently are pro-rated. Trading revenue averaged $12.3 million per day, decreased from $13.9 million in 2020. Revenue was positive on 99.2% of trading days during the year, which was better than the level in 2020 as market condition improved. During the year, the largest single day trading loss was $11.4 million which occurred on October 27, 2021, and was smaller than the total VaR of $11.8 million on the same day.

C29 Trading revenue distribution Year ended October 31, 2021



C30 Daily trading revenue vs. VaR $ millions, November 1, 2020 to October 31, 2021



Market risk linkage to Consolidated Statement of Financial Position

Trading assets and liabilities are marked to market daily and included in trading risk measures such as VaR. Derivatives captured under trading risk measures are related to the activities of Global Banking and Markets, whiles derivatives captured under non-trading risk measures comprise those used in asset/liability management and designated in a hedge relationship. A comparison of Consolidated Statement of Financial Position items which are covered under the trading and non-trading risk measures is provided in the table below.

T52 Market risk linkage to Consolidated Statement of Financial Position of the Bank

As at October 31, 2021 ($ millions)	Consolidated Statement of Financial Position	Market Risk Measure: Trading Risk	Market Risk Measure: Non-trading risk	Market Risk Measure: Not subject to market risk	Primary risk sensitivity of non-trading risk
Precious metals	$ 755	$ 755	$ –	$ –	n/a
Trading assets	146,312	146,238	74	–	Interest rate, FX
Derivative financial instruments	42,302	35,379	6,923	–	Interest rate, FX, equity
Investment securities	75,199	–	75,199	–	Interest rate, FX, equity
Loans	636,986	–	636,986	–	Interest rate, FX
Assets not subject to market risk (1)	283,290	–	–	283,290	n/a
Total assets	$ 1,184,844	$ 182,372	$ 719,182	$ 283,290	
Deposits	$ 797,259	$ –	$ 751,862	$ 45,397	Interest rate, FX, equity
Financial instruments designated at fair value through profit or loss	22,493	–	22,493	–	Interest rate, equity
Obligations related to securities sold short	40,954	40,954	–	–	n/a
Derivative financial instruments	42,203	35,702	6,501	–	Interest rate, FX, equity
Trading liabilities(2)	417	417	–	–	n/a
Retirement and other benefit liabilities	1,820	–	1,820	–	Interest rate, credit spread, equity
Liabilities not subject to market risk (3)	206,806	–	–	206,806	n/a
Total liabilities	$ 1,111,952	$ 77,073	$ 782,676	$ 252,203	

(1) Includes goodwill, intangibles, other assets and securities purchased under resale agreements and securities borrowed.
(2) Gold and silver certificates and bullion included in other liabilities.
(3) Includes obligations related to securities sold under repurchase agreements and securities lent and other liabilities.

As at October 31, 2020 ($ millions)	Consolidated Statement of Financial Position	Market Risk Measure: Trading Risk	Market Risk Measure: Non-trading risk	Market Risk Measure: Not subject to market risk	Primary risk sensitivity of non-trading risk
Precious metals	$ 1,181	$ 1,181	$ –	$ –	n/a
Trading assets	117,839	117,492	347	–	Interest rate, FX
Derivative financial instruments	45,065	39,294	5,771	–	Interest rate, FX, equity
Investment securities	111,389	–	111,389	–	Interest rate, FX, equity
Loans	603,263	–	603,263	–	Interest rate, FX
Assets not subject to market risk (1)	257,729	–	–	257,729	n/a
Total assets	$ 1,136,466	$ 157,967	$ 720,770	$ 257,729	
Deposits	$ 750,838	$ –	$ 709,850	$ 40,988	Interest rate, FX, equity
Financial instruments designated at fair value through profit or loss	18,899	–	18,899	–	Interest rate, equity
Obligations related to securities sold short	31,902	31,902	–	–	n/a
Derivative financial instruments	42,247	36,038	6,209	–	Interest rate, FX, equity
Trading liabilities(2)	1,112	1,112	–	–	n/a
Retirement and other benefit liabilities	3,464	–	3,464	–	Interest rate, credit spread, equity
Liabilities not subject to market risk (3)	217,501	–	–	217,501	n/a
Total liabilities	$ 1,065,963	$ 69,052	$ 738,422	$ 258,489	

(1) Includes goodwill, intangibles, other assets and securities purchased under resale agreements and securities borrowed.
(2) Gold and silver certificates and bullion included in other liabilities.
(3) Includes obligations related to securities sold under repurchase agreements and securities lent and other liabilities.

Derivative instruments and structured transactions

Derivatives

The Bank uses derivatives to meet customer needs, generate revenues from trading activities, manage market and credit risks arising from its lending, funding and investment activities, and to lower its cost of capital. The Bank uses several types of derivative products, including interest rate swaps, futures and options, to hedge interest rate risk exposure. Forward contracts, swaps and options are used to manage foreign currency risk exposures. Credit exposures in its lending and investment books may be managed using credit default swaps. As a dealer, the Bank markets a range of derivatives to its customers, including interest rate, foreign exchange, equity, commodity and credit derivatives.

Market risk arising from derivatives transactions is subject to the control, reporting and analytical techniques noted above. Additional controls and analytical techniques are applied to address certain market-related risks that are unique to derivative products.

Structured transactions
Structured transactions are specialized transactions that may involve combinations of cash, other financial assets and derivatives designed to meet the specific risk management or financial requirements of customers. These transactions are carefully evaluated by the Bank to identify and address the credit, market, legal, tax, reputational and other risks, and are subject to a cross-functional review and sign-off by Trading Management, Global Risk Management, Taxation, Finance and Legal departments. Large structured transactions are also subject to review by senior risk management committees and evaluated in accordance with the procedures described below in Reputational Risk.

The market risk in these transactions is usually minimal, and returns are earned by providing structuring expertise and by taking credit risk. Once executed, structured transactions are subject to the same ongoing credit reviews and market risk analysis as other types of derivatives transactions. This review and analysis includes careful monitoring of the quality of the reference assets, and ongoing valuation of the derivatives and reference assets.

Liquidity Risk

Liquidity risk is the risk that the Bank is unable to meet its financial obligations in a timely manner at reasonable prices. Financial obligations include liabilities to depositors, payments due under derivative contracts, settlement of securities borrowing and repurchase transactions, and lending and investment commitments.

Effective liquidity risk management is essential to maintain the confidence of depositors and counterparties, manage the Bank's cost of funds and to support core business activities, even under adverse circumstances.

Liquidity risk is managed within the framework of policies and limits that are approved by the Board of Directors. The Board receives reports on risk exposures and performance against approved limits. The Asset-Liability Committee (ALCO) provides senior management oversight of liquidity risk.

The key elements of the liquidity risk framework are:

- Measurement and modeling – the Bank's liquidity model measures and forecasts cash inflows and outflows, including off-balance sheet cash flows on a daily basis. Risk is managed by a set of key limits over the maximum net cash outflow by currency over specified short-term horizons (cash gaps), a minimum level of core liquidity, and liquidity stress tests.
- Reporting – Global Risk Management provides independent oversight of all significant liquidity risks, supporting the ALCO with analysis, risk measurement, stress testing, monitoring and reporting.
- Stress testing – the Bank performs liquidity stress testing on a regular basis, to evaluate the effect of both industry-wide and Bank-specific disruptions on the Bank's liquidity position. Liquidity stress testing has many purposes including:
  - Helping the Bank understand the potential behavior of various on-balance sheet and off-balance sheet positions in circumstances of stress; and
  - Based on this knowledge, facilitating the development of risk mitigation and contingency plans.

  The Bank's liquidity stress tests consider the effect of changes in funding assumptions, depositor behavior and the market value of liquid assets. The Bank performs industry standard stress tests, the results of which are reviewed at senior levels of the organization and are considered in making liquidity management decisions.
- Contingency planning – the Bank maintains a liquidity contingency plan that specifies an approach for analyzing and responding to actual and potential liquidity events. The plan outlines an appropriate governance structure for the management and monitoring of liquidity events, processes for effective internal and external communication, and identifies potential counter measures to be considered at various stages of an event. A contingency plan is maintained both at the parent-level as well as for major subsidiaries.
- Funding diversification – the Bank actively manages the diversification of its deposit liabilities by source, type of depositor, instrument, term and geography.
- Core liquidity – the Bank maintains a pool of highly liquid, unencumbered assets that can be readily sold or pledged to secure borrowings under stressed market conditions or due to Bank-specific events. The Bank also maintains liquid assets to support its intra-day settlement obligations in payment, depository and clearing systems.

Liquid assets
Liquid assets are a key component of liquidity management and the Bank holds these types of assets in sufficient quantity to meet potential needs for liquidity management.

Liquid assets can be used to generate cash either through sale, repurchase transactions or other transactions where these assets can be used as collateral to generate cash, or by allowing the asset to mature. Liquid assets include deposits at central banks, deposits with financial institutions, call and other short-term loans, marketable securities, precious metals and securities received as collateral from securities financing and derivative transactions. Liquid assets do not include borrowing capacity from central bank facilities.

Marketable securities are securities traded in active markets, which can be converted to cash within a timeframe that is in accordance with the Bank's liquidity management framework. Assets are assessed considering a number of factors, including the expected time it would take to convert them to cash.

Marketable securities included in liquid assets are comprised of securities specifically held as a liquidity buffer or for asset liability management purposes; trading securities, which are primarily held by Global Banking and Markets; and collateral received for securities financing and derivative transactions.

The Bank maintains large holdings of unencumbered liquid assets to support its operations. These assets generally can be sold or pledged to meet the Bank's obligations. As at October 31, 2021 unencumbered liquid assets were $246 billion (October 31, 2020 – $250 billion). Securities including NHA mortgage-backed securities, comprised 67% of liquid assets (October 31, 2020 – 72%). Other unencumbered liquid assets, comprising cash

and deposits with central banks, deposits with financial institutions, precious metals and call and short loans, were 33% (October 31, 2020 – 28%). The decrease in liquid assets was mainly attributable to a decrease in Canadian and foreign government obligations, NHA mortgage-backed securities, and deposits with financial institutions, partially offset by an increase in cash and deposits with central banks and other liquid securities.

The carrying values outlined in the liquid asset table are consistent with the carrying values in the Bank's Consolidated Statement of Financial Position as at October 31, 2021. The liquidity value of the portfolio will vary under different stress events as different assumptions are used for the stress scenarios.

The Bank's liquid asset pool is summarized in the following table:

T53 Liquid asset pool

As at October 31, 2021 ($ millions)	Bank-owned liquid assets	Securities received as collateral from securities financing and derivative transactions	Total liquid assets	Encumbered liquid assets: Pledged as collateral	Encumbered liquid assets: Other[1]	Unencumbered liquid assets: Available as collateral	Unencumbered liquid assets: Other
Cash and deposits with central banks	$ 77,695	$ –	$ 77,695	$ –	$ 5,858	$ 71,837	$ –
Deposits with financial institutions	8,628	–	8,628	–	197	8,431	–
Precious metals	755	–	755	–	–	755	–
Securities:							
Canadian government obligations	47,772	20,311	68,083	30,490	–	37,593	–
Foreign government obligations	62,288	81,296	143,584	77,571	–	66,013	–
Other securities	98,476	69,368	167,844	128,979	–	38,865	–
Loans:							
NHA mortgage-backed securities	30,153	–	30,153	8,114	–	22,039	–
Call and short loans	20	–	20	–	–	20	–
Total	$ 325,787	$ 170,975	$ 496,762	$ 245,154	$ 6,055	$ 245,553	$ –

As at October 31, 2020 ($ millions)	Bank-owned liquid assets	Securities received as collateral from securities financing and derivative transactions	Total liquid assets	Encumbered liquid assets: Pledged as collateral	Encumbered liquid assets: Other[1]	Unencumbered liquid assets: Available as collateral	Unencumbered liquid assets: Other
Cash and deposits with central banks	$ 66,252	$ –	$ 66,252	$ –	$ 7,019	$ 59,233	$ –
Deposits with financial institutions	10,208	–	10,208	–	74	10,134	–
Precious metals	1,181	–	1,181	–	–	1,181	–
Securities:							
Canadian government obligations	74,943	14,890	89,833	37,991	–	51,842	–
Foreign government obligations	71,686	79,032	150,718	83,117	–	67,601	–
Other securities	69,470	78,238	147,708	114,867	–	32,841	–
Loans:							
NHA mortgage-backed securities	35,267	–	35,267	8,010	–	27,257	–
Call and short loans	165	–	165	–	–	165	–
Total	$ 329,172	$ 172,160	$ 501,332	$ 243,985	$ 7,093	$ 250,254	$ –

(1) Assets which are restricted from being used to secure funding for legal or other reasons.

A summary of total unencumbered liquid assets held by the parent bank and its branches, and domestic and foreign subsidiaries, is presented below:

T54 Total unencumbered liquid assets held by the parent bank and its branches, and domestic and foreign subsidiaries

As at October 31 ($ millions)	2021	2020
The Bank of Nova Scotia (Parent)	$ 185,903	$ 192,490
Bank domestic subsidiaries	18,267	14,517
Bank foreign subsidiaries	41,383	43,247
Total	$ 245,553	$ 250,254

The Bank's liquidity pool is held across major currencies, mostly comprised of Canadian and U.S. dollar holdings. As shown above, the vast majority (83%) of liquid assets are held by the Bank's corporate office, branches of the Bank, and Canadian subsidiaries of the Bank. To the extent a liquidity reserve held in a foreign subsidiary of the Bank is required for regulatory purposes, it is assumed to be unavailable to the rest of the Group. Other liquid assets held by a foreign subsidiary are assumed to be available only in limited circumstances. The Bank monitors and ensures compliance in relation to minimum levels of liquidity required and assets held within each entity, and/or jurisdiction.

Encumbered assets

In the course of the Bank's day-to-day activities, securities and other assets are pledged to secure an obligation, participate in clearing or settlement systems, or operate in a foreign jurisdiction. Securities are also pledged under repurchase agreements. A summary of encumbered and unencumbered assets is presented below:

T55 Asset encumbrance

As at October 31, 2021 ($ millions)	Bank-owned assets	Securities received as collateral from securities financing and derivative transactions	Total assets	Encumbered assets: Pledged as collateral	Encumbered assets: Other(1)	Unencumbered assets: Available as collateral(2)	Unencumbered assets: Other(3)
Cash and deposits with central banks	$ 77,695	$ –	$ 77,695	$ –	$ 5,858	$ 71,837	$ –
Deposits with financial institutions	8,628	–	8,628	–	197	8,431	–
Precious metals	755	–	755	–	–	755	–
Liquid securities:							
Canadian government obligations	47,772	20,311	68,083	30,490	–	37,593	–
Foreign government obligations	62,288	81,296	143,584	77,571	–	66,013	–
Other liquid securities	98,476	69,368	167,844	128,979	–	38,865	–
Other securities	3,811	13,254	17,065	6,028	–	–	11,037
Loans classified as liquid assets:							
NHA mortgage-backed securities	30,153	–	30,153	8,114	–	22,039	–
Call and short loans	20	–	20	–	–	20	–
Other loans	614,926	–	614,926	5,964	65,647	10,527	532,788
Other financial assets(4)	194,100	(111,892)	82,208	6,651	–	–	75,557
Non-financial assets	46,220	–	46,220	–	–	–	46,220
Total	$ 1,184,844	$ 72,337	$ 1,257,181	$ 263,797	$ 71,702	$ 256,080	$ 665,602

As at October 31, 2020 ($ millions)	Bank-owned assets	Securities received as collateral from securities financing and derivative transactions	Total assets	Encumbered assets: Pledged as collateral	Encumbered assets: Other(1)	Unencumbered assets: Available as collateral(2)	Unencumbered assets: Other(3)
Cash and deposits with central banks	$ 66,252	$ –	$ 66,252	$ –	$ 7,019	$ 59,233	$ –
Deposits with financial institutions	10,208	–	10,208	–	74	10,134	–
Precious metals	1,181	–	1,181	–	–	1,181	–
Liquid securities:							
Canadian government obligations	74,943	14,890	89,833	37,991	–	51,842	–
Foreign government obligations	71,686	79,032	150,718	83,117	–	67,601	–
Other liquid securities	69,470	78,238	147,708	114,867	–	32,841	–
Other securities	3,621	7,794	11,415	3,227	–	–	8,188
Loans classified as liquid assets:							
NHA mortgage-backed securities	35,267	–	35,267	8,010	–	27,257	–
Call and short loans	165	–	165	–	–	165	–
Other loans	576,183	–	576,183	7,640	81,780	17,702	469,061
Other financial assets(4)	182,671	(109,231)	73,440	6,182	–	–	67,258
Non-financial assets	44,819	–	44,819	–	–	–	44,819
Total	$ 1,136,466	$ 70,723	$ 1,207,189	$ 261,034	$ 88,873	$ 267,956	$ 589,326

(1) Assets which are restricted from being used to secure funding for legal or other reasons.
(2) Assets that are readily available in the normal course of business to secure funding or meet collateral needs including central bank borrowing immediately available.
(3) Other unencumbered assets are not subject to any restrictions on their use to secure funding or as collateral but the Bank would not consider them to be readily available. These include loans, a portion of which may be used to access central bank facilities outside of the normal course or to raise secured funding through the Bank's secured funding programs.
(4) Securities received as collateral against other financial assets are included within liquid securities and other securities.

As of October 31, 2021 total encumbered assets of the Bank were $335 billion (October 31, 2020 – $350 billion). Of the remaining $922 billion (October 31, 2020 – $857 billion) of unencumbered assets, $256 billion (October 31, 2020 – $268 billion) are considered readily available in the normal course of business to secure funding or meet collateral needs as detailed above.

In some over-the-counter derivative contracts, the Bank would be required to post additional collateral or receive less collateral in the event its credit rating was downgraded. The Bank maintains access to sufficient collateral to meet these obligations in the event of a downgrade of its ratings by one or more of the rating agencies. As at October 31, 2021 the potential adverse impact on derivatives collateral that would result from a one-notch or two-notch downgrade of the Bank's rating below its lowest current rating was $20 million or $258 million, respectively.

Encumbered liquid assets are not considered to be available for liquidity management purposes. Liquid assets which are used to hedge derivative positions in trading books or for hedging purposes are considered to be available for liquidity management provided they meet the criteria discussed in liquid assets above.

Liquidity coverage ratio

The Liquidity Coverage Ratio measure (LCR) is based on a 30-day liquidity stress scenario, with assumptions defined in the OSFI Liquidity Adequacy Requirements (LAR) Guideline. The LCR is calculated as the ratio of high quality liquid assets (HQLA) to net cash outflows. The Bank is subject to a regulatory minimum LCR of 100%.

OSFI's LAR stipulates that banks must maintain an adequate level of unencumbered HQLA that can be converted into cash to meet liquidity needs over a 30 calendar day horizon under a pre-defined significantly severe liquidity stress scenario. The LCR-prescribed liquidity stress scenario includes assumptions for asset haircuts, deposit run-off, wholesale rollover rates, and outflow rates for commitments.

HQLA are grouped into three categories: Level 1, Level 2A and Level 2B, based on guidelines from the LAR. Level 1 HQLA receive no haircuts, and includes cash, deposits with central banks, central bank reserves available to the Bank in times of stress, and securities with a 0% risk weight. Level 2A and 2B include HQLA of lesser quality and attracts haircuts ranging from 15%-50%.

The total weighted values for net cash outflows for the next 30 days are derived by applying the assumptions specified in the LAR Guideline to specific items, including loans, deposits, maturing debt, derivative transactions and commitments to extend credit.

The following table presents the Bank's average LCR for the quarter ended October 31, 2021 based on the average daily position in the quarter.

T56 Bank's average LCR(1)

For the quarter ended October 31, 2021 ($ millions) (2)	Total unweighted value (Average)(3)	Total weighted value (Average)(4)
High-quality liquid assets		
Total high-quality liquid assets (HQLA)	*	**$ 197,528**
Cash outflows		
Retail deposits and deposits from small business customers, of which:	$ 233,649	19,888
Stable deposits	97,185	3,139
Less stable deposits	136,464	16,749
Unsecured wholesale funding, of which:	260,381	110,255
Operational deposits (all counterparties) and deposits in networks of cooperative banks	108,591	25,886
Non-operational deposits (all counterparties)	131,737	64,316
Unsecured debt	20,053	20,053
Secured wholesale funding	*	51,470
Additional requirements, of which:	237,127	52,441
Outflows related to derivative exposures and other collateral requirements	34,918	25,543
Outflows related to loss of funding on debt products	4,686	4,686
Credit and liquidity facilities	197,523	22,213
Other contractual funding obligations	1,605	1,454
Other contingent funding obligations(5)	441,674	6,102
Total cash outflows	*	**$ 241,609**
Cash inflows		
Secured lending (e.g. reverse repos)	$ 182,135	$ 45,580
Inflows from fully performing exposures	25,485	15,973
Other cash inflows	21,257	21,257
Total cash inflows	**$ 228,877**	**$ 82,810**

		Total adjusted value(6)
Total HQLA	*	**$ 197,528**
Total net cash outflows	*	**$ 158,799**
Liquidity coverage ratio (%)	*	**124%**

For the quarter ended October 31, 2020 ($ millions)		Total adjusted value(6)
Total HQLA	*	$ 209,777
Total net cash outflows	*	$ 151,897
Liquidity coverage ratio (%)	*	138%

* Disclosure is not required under regulatory guideline.
(1) This measure has been disclosed in this document in accordance with OSFI Guideline – Public Disclosure Requirements for Domestic Systemically Important Banks on Liquidity Coverage Ratio (April 2015).
(2) Based on the average daily positions of the 61 business days in the quarter.
(3) Unweighted values represent outstanding balances maturing or callable within the next 30 days.
(4) Weighted values represent balances calculated after the application of HQLA haircuts or inflow and outflow rates, as prescribed by the OSFI Liquidity Adequacy Requirements (LAR) guidelines.
(5) Total unweighted value includes uncommitted credit and liquidity facilities, guarantees and letters of credit, outstanding debt securities with remaining maturity greater than 30 days, and other contractual cash outflows.
(6) Total adjusted value represents balances calculated after the application of both haircuts and inflow and outflow rates and any applicable caps.

HQLA is substantially comprised of Level 1 assets (as defined in the LAR guideline), such as cash, deposits with central banks available to the Bank in times of stress, and highly rated securities issued or guaranteed by governments, central banks and supranational entities.

The decrease in the Bank's average LCR for the quarter ended October 31, 2021 versus the quarter ended October 31, 2020 was attributable to repayments under the Bank of Canada Term Repo Program and growth in loans and mortgages, partially offset by growth in deposits. The Bank monitors its significant currency exposures, Canadian and U.S. dollars, in accordance with its liquidity risk management framework and risk appetite.

Net stable funding ratio

The Net Stable Funding Ratio (NSFR) requires institutions to maintain a stable funding profile in relation to the composition of their assets and off-balance sheet exposures. It is calculated as the ratio of available stable funding (ASF) to required stable funding (RSF), with assumptions defined in the OSFI LAR Guideline. The Bank is subject to a regulatory minimum NSFR of 100%.

ASF is defined as the portion of capital and liabilities expected to be reliable over the time horizons considered by the NSFR. RSF is a function of the liquidity characteristics and residual maturities of the various assets held by the bank as well as those of its off-balance sheet exposures.

The total weighted values for ASF and RSF included in the table that follows are derived by applying the assumptions specified in the LAR Guideline to balance sheet items, including capital instruments, wholesale funding, deposits, loans and mortgages, securities, derivatives and commitments to extend credit.

The following table presents the Bank's NSFR as at October 31, 2021.

T57 Bank's NSFR(1)

As at October 31, 2021 *($ millions)*	Unweighted Value by Residual Maturity				Weighted value(3)
	No maturity(2)	< 6 months	6-12 months	³ 1 year	
Available Stable Funding (ASF) Item					
Capital:	$ 77,328	$ –	$ –	$ 901	$ 78,229
Regulatory capital	77,328	–	–	–	77,328
Other capital instruments	–	–	–	901	901
Retail deposits and deposits from small business customers:	211,106	53,222	12,462	22,692	274,483
Stable deposits	92,730	15,582	4,210	5,823	112,719
Less stable deposits	118,376	37,640	8,252	16,869	161,764
Wholesale funding:	180,643	282,147	49,398	99,098	267,850
Operational deposits	93,627	7,013	–	–	50,320
Other wholesale funding	87,016	275,134	49,398	99,098	217,530
Liabilities with matching interdependent assets	–	2,051	1,648	21,869	–
Other liabilities:	66,220		66,492		20,725
NSFR derivative liabilities			9,321		
All other liabilities and equity not included in the above categories	66,220	35,714	1,464	19,993	20,725
Total ASF					**$ 641,287**
Required Stable Funding (RSF) Item					
Total NSFR high-quality liquid assets (HQLA)					$ 30,528
Deposits held at other financial institutions for operational purposes	$ 1,906	$ –	$ –	$ –	$ 953
Performing loans and securities:	99,908	159,289	54,663	449,415	490,313
Performing loans to financial institutions secured by Level 1 HQLA	106	47,231	3,977	–	4,501
Performing loans to financial institutions secured by non-Level 1 HQLA and unsecured performing loans to financial institutions	2,886	58,281	9,172	11,908	26,206
Performing loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, central banks and PSEs, of which:	46,896	46,399	25,761	183,053	229,534
With a risk weight of less than or equal to 35% under the Basel II standardised approach for credit risk	–	265	308	2,661	2,016
Performing residential mortgages, of which:	20,008	6,100	15,062	247,970	198,065
With a risk weight of less than or equal to 35% under the Basel II standardised approach for credit risk	20,008	5,908	14,938	235,407	187,229
Securities that are not in default and do not qualify as HQLA, including exchange-traded equities	30,012	1,278	691	6,484	32,007
Assets with matching interdependent liabilities(4)	–	2,051	1,648	21,869	–
Other assets:	1,807		101,369		42,804
Physical traded commodities, including gold	1,807				1,536
Assets posted as initial margin for derivative contracts and contributions to default funds of CCPs			3,233		2,748
NSFR derivative assets			7,777		–
NSFR derivative liabilities before deduction of variation margin posted			17,756		888
All other assets not included in the above categories	–	34,975	–	37,628	37,632
Off-balance sheet items			412,300		16,123
Total RSF					**$ 580,721**
Net Stable Funding Ratio (%)					**110%**

(1) This measure has been disclosed in this document in accordance with OSFI Guideline – Net Stable Funding Ratio Disclosure Requirements (January 2021).
(2) Items in the "no maturity" time bucket do not have a stated maturity. These may include, but are not limited to, items such as capital with perpetual maturity, non-maturity deposits, short positions, open maturity positions, non-HQLA equities, and physical traded commodities.
(3) Weighted values represent balances calculated after the application of ASF and RSF rates, as prescribed by the OSFI Liquidity Adequacy Requirement (LAR) guideline.
(4) Interdependent assets and liabilities are primarily comprised of transactions related to the Canada Mortgage Bond program.

As at July 31, 2021 *($ millions)*		Weighted value
Total ASF	$	634,952
Total RSF		566,866
Net stable funding ratio (%)		112%

Available stable funding is primarily provided by the Bank's large pool of retail, small business and corporate customer deposits; secured and unsecured wholesale funding and capital. Required stable funding primarily originates from the Bank's loan and mortgage portfolio, securities holdings, off-balance sheet items and other assets.

The Bank's NSFR as at October 31, 2021 was lower than the previous quarter end primarily due to higher RSF from mortgage and loan growth partially offset by higher ASF from wholesale funding.

Funding

The Bank ensures that its funding sources are well diversified. Funding concentrations are regularly monitored and analyzed by type. The sources of funding are capital, deposits from retail and commercial clients sourced through the Canadian and international branch network, deposits from financial institutions as well as wholesale debt issuances.

Capital and personal deposits are key components of the Bank's core funding and these amounted to $324 billion as at October 31, 2021 (October 31, 2020 – $325 billion). A portion of commercial deposits, particularly those of an operating or relationship nature, are also considered part of the Bank's core funding. Furthermore, core funding is augmented by longer term wholesale debt issuances (original maturity over 1 year) of $177 billion (October 31, 2020 – $168 billion). Longer term wholesale debt issuances include senior notes, mortgage securitizations, asset-backed securities and covered bonds.

The Bank operates in many different currencies and countries. From a funding perspective, the most significant currencies are Canadian and U.S. dollars. With respect to the Bank's operations outside Canada, there are different funding strategies depending on the nature of the activities in each country. For those countries where the Bank operates a branch banking subsidiary, the strategy is for the subsidiary to be substantially self-funding in its local market. For other subsidiaries or branches outside Canada where local deposit gathering capability is not sufficient, funding is provided through the wholesale funding activities of the Bank.

From an overall funding perspective, the Bank's objective is to achieve an appropriate balance between the cost and the stability of funding. Diversification of funding sources is a key element of the funding strategy.

The Bank's wholesale debt diversification strategy is primarily executed via the Bank's main wholesale funding centres, located in Toronto, New York, London and Singapore. The majority of these funds are sourced in Canadian and U.S. dollars. Where required, these funds are swapped to fund assets in different currencies. The funding strategy deployed by wholesale funding centres and the management of associated risks, such as geographic and currency risk, are managed centrally within the framework of policies and limits that are approved by the Board of Directors.

In the normal course, the Bank uses a mix of unsecured and secured wholesale funding instruments across a variety of markets. The choice of instruments and markets is based on a number of factors, including relative cost, market capacity and diversification of funding. Market conditions can change over time, impacting cost and capacity in particular markets or instruments. Changing market conditions can include periods of stress where the availability of funding in particular markets or instruments is constrained. In these circumstances the Bank would increase its focus on sources of funding in functioning markets and secured funding instruments. Should a period of extreme stress exist such that all wholesale funding sources are constrained, the Bank maintains a pool of liquid assets to mitigate its liquidity risk. This pool includes cash, deposits with central banks and securities.

In Canada, the Bank raises short and longer-term wholesale debt through the issuance of senior unsecured notes. Additional longer-term wholesale debt may be generated through the Bank's Canadian Debt and Equity Shelf, the securitization of Canadian insured residential mortgages through CMHC programs (such as Canada Mortgage Bonds), uninsured residential mortgages through the Bank's Covered Bond Program, retail credit card receivables through the Trillium Credit Card Trust II program, retail indirect auto loan receivables through the Securitized Term Auto Receivables Trust program and unsecured personal lines of credit through the Halifax Receivables Trust program. CMHC securitization programs, while included in the Bank's view of wholesale debt issuance, do not entail the run-off risk that can be experienced in funding raised from capital markets.

Outside of Canada, short-term wholesale debt may be raised through the issuance of negotiable certificates of deposit in the United States, Hong Kong, the United Kingdom, and Australia and the issuance of commercial paper in the United States. The Bank operates longer-term wholesale debt issuance registered programs in the United States, such as its SEC Registered Debt and Equity Shelf, and non-registered programs, such as the securitization of retail indirect auto loan receivables through the Securitized Term Auto Receivables Trust program and retail credit card receivables through the Trillium Credit Card Trust II program. The Bank may issue its Covered Bond Program (listed with the U.K. Listing Authority and the Swiss Stock Exchange), in Europe, the United Kingdom, the United States, Australia and Switzerland. The Bank also raises longer-term funding across a variety of currencies through its Australian Medium Term Note Programme, European Medium Term Note Programme (listed with the U.K. Listing Authority and the Swiss Stock Exchange) and Singapore Medium Term Note Programme (listed with the Singapore Exchange and the Taiwan Exchange).

The Department of Finance's bail-in regulations under the Canada Deposit Insurance Corporation (CDIC) Act and the Bank Act, became effective September 23, 2018. Senior long-term debt issued by the Bank on or after September 23, 2018, that has an original term greater than 400 days and is marketable, subject to certain exceptions, is subject to the Canadian Bank Recapitalization (Bail-in) regime. Under the Bail-in regime, in circumstances when the Superintendent of Financial Institutions has determined that a bank may no longer be viable, the Governor in Council may, upon a recommendation of the Minister of Finance that they are of the opinion that it is in the public interest to do so, grant an order directing the CDIC to convert all or a portion of certain shares and liabilities of that bank into common shares. As at October 31, 2021, issued and outstanding liabilities of $50 billion (October 31, 2020 – $33 billion) were subject to conversion under the bail-in regime.

During 2020, the Bank accessed programs of central banks launched or amended in response to COVID-19 to supplement its funding. During the current year, the majority of the liquidity that the Bank accessed under these programs was repaid.

The table below provides the remaining contractual maturities of funding raised through wholesale funding. In the Consolidated Statement of Financial Position, these liabilities are primarily included in Business & Government Deposits.

T58 Wholesale funding(1)

As at October 31, 2021 ($millions)	Less than 1 month	1-3 months	3-6 months	6-9 months	9-12 months	Sub-Total < 1 Year	1-2 years	2-5 years	>5 years	Total
Deposits from banks(2)	$ 1,348	$ 302	$ 220	$ 151	$ 348	$ 2,369	$ 166	$ –	$ –	$ 2,535
Bearer deposit notes, commercial paper and short-term certificate of deposits	5,030	11,249	15,037	18,439	12,169	61,924	537	162	48	62,671
Asset-backed commercial paper(3)	1,328	2,248	965	–	–	4,541	–	–	–	4,541
Senior notes(4)(5)	3	2,254	6,029	1,283	4,476	14,045	8,144	5,224	10,385	37,798
Bail-inable notes(5)	–	77	127	1	–	205	14,421	21,827	13,207	49,660
Asset-backed securities	–	606	–	–	–	606	752	604	85	2,047
Covered bonds	–	1,789	–	–	1,788	3,577	7,412	15,206	5,055	31,250
Mortgage securitization(6)	–	669	1,382	928	720	3,699	6,154	11,008	4,590	25,451
Subordinated debentures(7)	26	–	49	–	49	124	–	1,931	6,352	8,407
Total wholesale funding sources	$ 7,735	$ 19,194	$ 23,809	$ 20,802	$ 19,550	$ 91,090	$ 37,586	$ 55,962	$ 39,722	$ 224,360
Of Which:										
Unsecured funding	$ 6,408	$ 13,882	$ 21,462	$ 19,874	$ 17,041	$ 78,667	$ 23,268	$ 29,144	$ 29,992	$ 161,071
Secured funding	1,327	5,312	2,347	928	2,509	12,423	14,318	26,818	9,730	63,289

As at October 31, 2020 ($millions)	Less than 1 month	1-3 months	3-6 months	6-9 months	9-12 months	Sub-Total < 1 Year	1-2 years	2-5 years	>5 years	Total
Deposits from banks(2)	$ 1,084	$ 439	$ 88	$ 36	$ 1	$ 1,648	$ –	$ –	$ –	$ 1,648
Bearer deposit notes, commercial paper and short-term certificate of deposits	5,813	9,539	10,475	6,856	4,567	37,250	953	346	67	38,616
Asset-backed commercial paper(3)	606	2,307	400	–	–	3,313	–	–	–	3,313
Senior notes(4)(5)	144	5,642	4,822	3,843	923	15,374	14,753	12,109	10,337	52,573
Bail-inable notes(5)	–	1,362	–	–	–	1,362	214	21,980	9,397	32,953
Asset-backed securities	–	1,811	12	–	–	1,823	956	542	254	3,575
Covered bonds	–	–	3,330	–	5,804	9,134	3,879	13,396	4,086	30,495
Mortgage securitization(6)	212	1,558	243	2,161	413	4,587	3,700	14,058	5,076	27,421
Subordinated debentures(7)	69	–	–	–	–	69	79	389	8,818	9,355
Total wholesale funding sources	$ 7,928	$ 22,658	$ 19,370	$ 12,896	$ 11,708	$ 74,560	$ 24,534	$ 62,820	$ 38,035	$ 199,949
Of Which:										
Unsecured funding	$ 7,110	$ 16,982	$ 15,385	$ 10,735	$ 5,491	$ 55,703	$ 15,999	$ 34,824	$ 28,619	$ 135,145
Secured funding	818	5,676	3,985	2,161	6,217	18,857	8,535	27,996	9,416	64,804

(1) Wholesale funding sources exclude repo transactions and bankers acceptances, which are disclosed in the T59 Contractual maturities. Amounts are based on remaining term to maturity.
(2) Only includes commercial bank deposits.
(3) Wholesale funding sources also exclude asset-backed commercial paper issued by certain ABCP conduits that are not consolidated for financial reporting purposes.
(4) Not subject to bail-in.
(5) Includes Structured notes issued to institutional investors.
(6) Represents residential mortgages funded through Canadian Federal Government agency sponsored programs. Funding accessed through such programs does not impact the funding capacity of the Bank in its own name.
(7) Although subordinated debentures are a component of regulatory capital, they are included in this table in accordance with EDTF recommended disclosures.

Wholesale funding generally bears a higher risk of run-off in a stressed environment than other sources of funding. The Bank mitigates this risk through funding diversification, ongoing engagement with investors and by maintaining a large holding of unencumbered liquid assets. Unencumbered liquid assets of $246 billion as at October 31, 2021 (October 31, 2020 – $250 billion) were well in excess of wholesale funding sources that mature in the next twelve months.

Contractual maturities and obligations

The table below provides the maturity of assets and liabilities as well as the off-balance sheet commitments as at October 31, 2021, based on the contractual maturity date.

From a liquidity risk perspective the Bank considers factors other than contractual maturity in the assessment of liquid assets or in determining expected future cash flows. In particular, for securities with a fixed maturity date, the ability and time horizon to raise cash from these securities is more relevant to liquidity management than contractual maturity. For other assets and deposits the Bank uses assumptions about rollover rates to assess liquidity risk for normal course and stress scenarios. Similarly, the Bank uses assumptions to assess the potential drawdown of credit commitments in various scenarios.

The Bank's contractual obligations include contracts and purchase obligations, including agreements to purchase goods and services that are enforceable, legally binding on the Bank and affect the Bank's liquidity and capital resource needs. The Bank leases a large number of its branches, offices and other locations. The majority of these leases are for a term of five years, with options to renew.

T59 Contractual maturities

	As at October 31, 2021									
($ millions)	Less than one month	One to three months	Three to six months	Six to nine months	Nine to twelve months	One to two years	Two to five years	Over five years	No specific maturity	Total
Assets										
Cash and deposits with financial institutions and precious metals	$ 78,205	$ 539	$ 312	$ 162	$ 273	$ 397	$ 792	$ 655	$ 5,743	$ 87,078
Trading assets	1,880	4,353	2,734	2,558	1,687	6,768	19,130	20,323	86,879	146,312
Securities purchased under resale agreements and securities borrowed	96,026	17,969	9,870	2,446	1,428	–	–	–	–	127,739
Derivative financial instruments	2,744	4,335	3,267	1,677	1,493	11,995	4,451	12,340	–	42,302
Investment securities – FVOCI	3,387	4,523	4,848	3,096	1,923	12,366	14,656	7,846	3,144	55,789
Investment securities – amortized cost	18	578	1,267	1,544	878	3,334	5,821	4,717	–	18,157
Investment securities – FVTPL	–	–	–	–	–	–	–	–	1,253	1,253
Loans	43,467	31,233	27,834	30,467	29,347	94,083	286,993	42,959	50,603	636,986
Residential mortgages	2,453	4,264	7,536	12,387	12,246	47,790	199,553	31,529	1,920(1)	319,678
Personal loans	3,472	2,195	3,188	3,099	3,103	11,309	22,105	6,227	36,842	91,540
Credit cards	–	–	–	–	–	–	–	–	12,450	12,450
Business and government	37,542	24,774	17,110	14,981	13,998	34,984	65,335	5,203	5,017(2)	218,944
Allowance for credit losses	–	–	–	–	–	–	–	–	(5,626)	(5,626)
Customers' liabilities under acceptances	15,094	4,099	850	225	136	–	–	–	–	20,404
Other assets	–	–	–	–	–	–	–	–	48,824	48,824
Total assets	240,821	67,629	50,982	42,175	37,165	128,943	331,843	88,840	196,446	1,184,844
Liabilities and equity										
Deposits	$ 63,207	$ 49,447	$ 44,953	$ 33,565	$ 29,960	$ 42,800	$ 61,816	$ 22,742	$ 448,769	$ 797,259
Personal	10,156	13,051	13,358	7,345	6,168	6,512	8,263	102	178,596	243,551
Non-personal	53,051	36,396	31,595	26,220	23,792	36,288	53,553	22,640	270,173	553,708
Financial instruments designated at fair value through profit or loss	86	306	1,069	817	983	4,302	2,613	12,317	–	22,493
Acceptances	15,131	4,099	850	225	136	–	–	–	–	20,441
Obligations related to securities sold short	473	312	956	324	594	2,312	11,388	7,481	17,114	40,954
Derivative financial instruments	2,228	3,668	2,150	2,663	2,622	11,051	5,352	12,469	–	42,203
Obligations related to securities sold under repurchase agreements and securities lent	104,216	9,109	6,126	3,826	87	–	105	–	–	123,469
Subordinated debentures	–	–	–	–	–	–	1,797	4,500	37	6,334
Other liabilities	4,650	1,514	2,122	1,124	2,931	5,176	8,783	6,573	25,926	58,799
Total equity	–	–	–	–	–	–	–	–	72,892	72,892
Total liabilities and equity	189,991	68,455	58,226	42,544	37,313	65,641	91,854	66,082	564,738	1,184,844
Off-Balance sheet commitments										
Credit commitments(3)	$ 6,340	$ 7,526	$ 17,894	$ 24,323	$ 19,567	$ 34,056	$ 122,565	$ 7,514	$ –	$ 239,785
Financial guarantees(4)	–	–	–	–	–	–	–	–	38,598	38,598
Outsourcing obligations(5)	19	38	56	56	56	224	260	46	–	755

(1) Includes primarily impaired mortgages.
(2) Includes primarily overdrafts and impaired loans.
(3) Includes the undrawn component of committed credit and liquidity facilities.
(4) Includes outstanding balances of guarantees, standby letters of credit and commercial letters of credit which may expire undrawn.
(5) The Bank relies on outsourcing arrangements for certain support and/or business functions, including, but not limited to, computer operations and cheque and bill payment processing.

T59 Contractual maturities

($ millions)	Less than one month	One to three months	Three to six months	Six to nine months	Nine to twelve months	One to two years	Two to five years	Over five years	No specific maturity	Total
	As at October 31, 2020									
Assets										
Cash and deposits with financial institutions and precious metals	$ 65,983	$ 469	$ 471	$ 225	$ 187	$ 496	$ 904	$ 767	$ 8,139	$ 77,641
Trading assets	2,312	4,412	4,426	1,752	2,135	6,366	21,720	16,856	57,860	117,839
Securities purchased under resale agreements and securities borrowed	83,584	21,620	10,059	2,765	1,719	–	–	–	–	119,747
Derivative financial instruments	2,026	4,140	623	2,156	2,312	8,141	7,242	18,425	–	45,065
Investment securities – FVOCI	2,755	5,041	6,941	3,213	6,374	10,179	34,214	7,948	1,832	78,497
Investment securities – amortized cost	1,196	1,707	4,155	2,787	931	4,337	7,626	8,905	–	31,644
Investment securities – FVTPL	–	–	–	–	–	–	–	–	1,248	1,248
Loans	42,908	28,913	31,072	32,724	31,159	92,194	248,377	42,114	53,802	603,263
Residential mortgages	2,938	5,271	9,009	13,400	13,458	49,948	158,050	30,012	2,598(1)	284,684
Personal loans	2,827	1,605	3,290	3,227	4,358	11,053	23,137	5,279	38,982	93,758
Credit cards	–	–	–	–	–	–	–	–	14,797	14,797
Business and government	37,143	22,037	18,773	16,097	13,343	31,193	67,190	6,823	5,064(2)	217,663
Allowance for credit losses	–	–	–	–	–	–	–	–	(7,639)	(7,639)
Customers' liabilities under acceptances	11,756	1,986	439	30	17	–	–	–	–	14,228
Other assets	–	–	–	–	–	–	–	–	47,294	47,294
Total assets	212,520	68,288	58,186	45,652	44,834	121,713	320,083	95,015	170,175	1,136,466
Liabilities and equity										
Deposits	$ 65,249	$ 47,997	$ 53,315	$ 38,786	$ 23,698	$ 39,350	$ 73,007	$ 20,614	$ 388,822	$ 750,838
Personal	10,231	13,741	15,088	11,626	6,192	11,691	9,861	216	167,489	246,135
Non-personal	55,018	34,256	38,227	27,160	17,506	27,659	63,146	20,398	221,333	504,703
Financial instruments designated at fair value through profit or loss	195	305	779	1,029	470	4,781	2,332	9,008	–	18,899
Acceptances	11,833	1,986	439	30	17	–	–	–	–	14,305
Obligations related to securities sold short	161	397	611	275	463	1,749	6,236	8,713	13,297	31,902
Derivative financial instruments	2,017	3,916	670	2,188	2,887	8,499	6,338	15,732	–	42,247
Obligations related to securities sold under repurchase agreements and securities lent	107,391	5,496	7,407	8,382	1,593	7,494	–	–	–	137,763
Subordinated debentures	–	–	–	–	–	–	–	7,405	–	7,405
Other liabilities	635	1,391	1,575	1,417	1,572	6,319	10,876	6,424	32,395	62,604
Total equity	–	–	–	–	–	–	–	–	70,503	70,503
Total liabilities and equity	187,481	61,488	64,796	52,107	30,700	68,192	98,789	67,896	505,017	1,136,466
Off-Balance sheet commitments										
Credit commitments(3)	$ 5,374	$ 13,010	$ 22,643	$ 24,764	$ 20,386	$ 34,638	$ 108,929	$ 5,625	$ –	$ 235,369
Financial guarantees(4)	–	–	–	–	–	–	–	–	35,519	35,519
Outsourcing obligations(5)	20	40	58	57	57	210	451	57	–	950

(1) Includes primarily impaired mortgages.
(2) Includes primarily overdrafts and impaired loans.
(3) Includes the undrawn component of committed credit and liquidity facilities.
(4) Includes outstanding balances of guarantees, standby letters of credit and commercial letters of credit which may expire undrawn.
(5) The Bank relies on outsourcing arrangements for certain support and/or business functions, including, but not limited to, computer operations and cheque and bill payment processing.

Principal Risks – Non-Financial

Money Laundering, Terrorist Financing and Sanctions Risk

Money Laundering, Terrorist Financing (ML/TF) and Sanctions risks are the susceptibility of Scotiabank to be used by individuals or organizations to launder the proceeds of crime, finance terrorism, or violate economic sanctions. They also include the risk that Scotiabank does not conform to applicable Anti-Money Laundering (AML)/Anti-Terrorist Financing (ATF) or Sanctions legislation or does not apply adequate controls reasonably designed to deter and detect ML/TF and sanctions violations or to file any required regulatory reports.

Money laundering, terrorist financing, and sanctions risks are managed throughout the Bank via the operation of the Bank's AML/ATF and Sanctions program ("the AML/ATF Program"). The Board appointed Group Chief Anti-Money Laundering Officer, who is also the head of Financial Crime Risk Management (FCRM) is responsible for the AML/ATF Program, which includes development and application of compliance policies, procedures, assessing the risk of money laundering, terrorist-financing or sanctions violations, and maintaining an ongoing compliance training program. The review of effectiveness is supplemented by an independent assessment conducted by the Audit Department. FCRM establishes enterprise standards to assess customers for money laundering, terrorist financing and sanctions risk.

The Bank conducts an annual self-assessment of the ML/TF and sanctions risks inherent in its business units, as well as assessment of the control measures in place to manage those risks. The process is led by the Bank's AML Risk unit and the results shared with the Bank's Senior Management. All active employees are provided with mandatory AML/ATF and Sanctions training on an annual basis. The Bank performs Customer Due Diligence sufficient to form a reasonable belief that it knows the true identity of its customers, including in the case of an entity, its material ultimate beneficial owners.

The Bank will not maintain anonymous accounts, nor will it maintain accounts for shell banks. Consistent with a risk-based approach, the Bank assesses the risks of its customers and, where appropriate, conducts enhanced due diligence on those who are considered higher risk. The Bank also conducts ongoing risk tailored monitoring of its customers to detect and report suspicious transactions and activity, and conducts customer and transaction screening against terrorist, sanctions, and other designated watch-lists.

Operational Risk

Operational risk is the risk of loss resulting from people, inadequate or failed processes and systems, or from external events. Operational risk includes third party risk management and legal risk but excludes strategic risk and reputational risk. It also exists in some form in each of the Bank's business and support activities, and third parties to whom activities have been outsourced. It can result in financial loss, regulatory sanctions and damage to the Bank's reputation. Operational risk management refers to the discipline of systematic identification, assessment, measurement, mitigation, monitoring, and reporting of operational risk.

The Bank's Operational Risk Management Framework outlines the Bank's structured approach for effective management of enterprise-wide operational risk in a manner consistent with best practices and regulatory requirements. The Framework consists of the following key components:

Governance

Risk Committee Governance. The Bank recognizes operational risk as a distinct risk management discipline, managed enterprise-wide, in a globally coordinated manner, and in compliance with local regulations. Governance of operational risk is aligned with the Bank's overarching committee governance structure.

Policies, Frameworks, and Methodologies. Operational risk management is governed by various policies, frameworks, and methodologies established for effective identification, measurement and management of operational risks across the Bank.

Risk Appetite

The operational risk appetite articulates the amount and type of risk the Bank is willing to take to achieve its strategic and financial objectives and consists of a mixture of qualitative statements and quantitative measures with limits where appropriate.

Risk Identification and Assessment

Risk identification and assessment is a critical part of effectively managing operational risk. Risks are identified, classified, and assessed, and their potential impact is evaluated and reported to management and the Board. Operational risk management tools and programs are in place to support the identification and assessment of operational risk with each having their defined methodology and/or standards. The key tools include an Operational Risk Dictionary, Risk and Control Self-Assessments (RCSA), Scenario Analysis, and New Initiatives Risk Assessment.

Risk Measurement

Operational Risk Events. The goal of Operational Risk Event reporting is to manage, mitigate and monitor operational risk within the organization. The data captured provides meaningful information for assessing and mitigating operational risk exposure at the Bank as a result of event root cause analysis and evaluation of internal controls. Timely, accurate and complete reporting of Operational Risk Event data assists the Bank in maintaining a strong risk culture and promotes transparency of the financial impact of Operational Risk Events by aggregating losses and monitoring performance to indicate whether the Bank is operating within its risk appetite.

Operational Risk Capital. Operational risk capital refers to regulatory and internal capital which is quantified as a reserve for unexpected losses resulting from operational risk. Operational risk capital is a component of the total amount of risk capital that the Bank holds.

Risk Mitigation

Controls are identified and assessed through the various Operational Risk Management tools. In cases where controls are deemed deficient a remedial action will be required, which in turn will help to mitigate residual risk. Operational risk response decisions include mitigation, transfer, acceptance, and avoidance of operational risks.

Risk Monitoring, Analytics, and Reporting

The Bank has processes in place for the ongoing monitoring of operational risk. These monitoring activities can provide an early warning of emerging issues, triggering timely management response. In addition, these activities allow for review and analysis of the risk profile in relation to risk appetite or other key indicators to identify when events may be approaching or exceeding thresholds, requiring action and/or escalation.

Operational risk data is collected in risk systems and used for reporting. Operational risk reporting facilitates distribution and escalation of operational risk information to the relevant parties and provides stakeholders involved in operational risk management activities access to reliable data in a consistent and timely manner to support risk-based decision making.

Cyber Security and Information Technology (IT) Risk

IT Risk is the risk of financial loss, disruption or damage to reputation from a failure of information technology systems. Cyber Security risks are the unique IT risks faced as a result of using interconnected systems and digital technologies.

The Cyber Security and IT risk landscape continues to evolve across the financial industry. The increasing use of online delivery channels and mobile devices to perform financial transactions exposes the bank to operational disruptions due to multiple factors: human errors, fraud, infrastructure failures, issues with our business partners, among others. These events may increase costs or may negatively impact the Bank's operational environment, our customers and other third parties.

The Board of Directors approves the Information Technology and Information Security Risk Framework, which along with its respective policies and other frameworks are focused on safeguarding the Bank and its customers' information, ensuring the Bank's IT environment is reliable, secure, resilient and robust in support of our business objectives.

Significant efforts are directed towards risk management activities, reinforcing industry standards and best practices across the enterprise. The Bank continues to expand its cyber security capabilities to defend against potential threats and minimize the impact to the business, including the activities to reinforce the Bank's resilience to events caused by factors out of the Bank's control. The dependency on third parties and the potential risks they bring to the continuity of our business activities is a key area of focus. Regulatory oversight of technology and cyber security risk continues to increase, demanding stronger controls to keep the financial ecosystem secure and in line with the evolving threat landscape.

The Bank continuously monitors and reports metrics and Key Risk Indicators to the Board of Directors, its Risk Committee and other management committees. Information security awareness campaigns are conducted periodically, including annual mandatory training sessions on information security and operational risk to all our employees, reinforcing our risk culture.

Compliance Risk

Compliance Risk is the risk of an activity not being conducted in conformity with applicable laws, rules, regulations and prescribed practices ("regulatory requirements"), as well as compliance related internal policies and procedures, and ethical standards expected by regulators, customers, investors, employees and other stakeholders. Compliance Risk includes Regulatory Compliance Risk, Conduct Risk, and Privacy Risk.

The Bank conducts business in many jurisdictions around the world and provides a wide variety of financial products and services through its various lines of business and operations. It is subject to, and must comply with, many and changing Regulations by governmental agencies, supervisory authorities and self-regulatory organizations in all the jurisdictions in which the Bank operates. The regulatory bar is constantly rising with Regulations being more vigorously enforced and new Regulations being enacted. The bar of public expectations is also constantly rising. Regulators and customers expect the Bank and its employees will operate its business in compliance with applicable laws and will refrain from unethical practices.

Compliance risk is managed on an enterprise-wide basis throughout the Bank via the operation of the Scotiabank Compliance Program ("the Program") which is led by the Bank's Chief Compliance Officer (CCO) who is responsible for overseeing Compliance Risk Management within the Bank. The CCO is responsible for assessing the adequacy of, adherence to and effectiveness of the Program, as well as for the development and application of written compliance policies and procedures that are kept up to date and approved by senior management, assessing and documenting compliance risks, developing and maintaining a written compliance training program, which in each case is performed either directly or indirectly by other departments within the Bank in coordination with Global Compliance. This program and these ancillary activities are subject to the Audit Department's periodic review to assess the effectiveness of the Program.

The Board-approved Compliance Risk Summary Framework describes the general policies and principles applicable to compliance risk management within Scotiabank and encompasses the Bank's Regulatory Compliance Management Framework (RCMF) as contemplated by OSFI Guideline E-13. The Compliance Risk Summary Framework is an integral part of the enterprise-wide framework, policies and procedures that collectively articulate the Bank's governance and control structure. Other more specifically focused compliance risk management policies and procedures may be developed within the Compliance Risk Summary Framework where necessary or appropriate.

Environmental Risk

Environmental risk refers to the possibility that environmental concerns involving Scotiabank or its stakeholders could affect the Bank's performance. The Bank considers climate change as a type of Environmental Risk.

The Bank is exposed to environmental risks through its physical operations and its lending and investment activities. To safeguard the Bank and the interests of its stakeholders, Scotiabank has an environmental policy, which is approved by the Bank's Board of Directors. The policy guides day-to-day operations, lending practices, supplier agreements, the management of real estate holdings and external reporting practices. It is supplemented by specific policies and practices relating to individual business lines. Additionally, the Bank has implemented an environmental risk management framework that describes the key processes in place to identify, assess, measure, monitor and report on its environmental risk exposure.

Environmental risks associated with the business operations of each borrower and any real property offered as security are considered in the Bank's credit evaluation procedures. This includes an environmental risk assessment where applicable, and commentary on the potential impact of climate change (including physical or transition risk impacts) on the borrower. Global Risk Management has primary responsibility for establishing the related policies, processes and standards associated with mitigating environmental risk in the Bank's lending activities. Decisions are taken in the context of the risk management framework.

In the area of project finance, the Equator Principles have been integrated into the Bank's internal processes and procedures since 2006. The Equator Principles help financial institutions determine, assess, manage and report environmental and social risk. The principles apply to project finance loans and advisory assignments where total capital costs exceed US$10 million, and to certain project-related corporate loans, bridge loans, and project-related refinance and project-related acquisition finance loans. The Equator Principles provide safeguards for sensitive projects

to ensure protection of natural habitats and the rights of indigenous peoples, as well as safeguards against the use of child and forced labour. The Bank has adopted the fourth version of Equator Principles (EP4), which came into effect on October 1, 2020.

The Bank's environmental policy plays a prominent role in guiding the reduction of the Bank's environmental footprint. The Real Estate Department adheres to an Environmental Compliance Policy to ensure responsible management of the Bank's real estate holdings from an environmental perspective. In addition, a variety of reduction measures are in place for energy, paper and waste in the Bank's corporate offices and branch networks. Internal tracking systems are in place with respect to energy use, greenhouse gas emissions (GHG) and paper consumption. Since 2012, GHG emissions data for the branch network and corporate offices has been externally verified.

To continue operations in an environmentally responsible manner, the Bank monitors policy and legislative requirements through ongoing dialogue with government, industry and stakeholders in countries where it operates. Scotiabank has been meeting with environmental organizations, industry associations and socially responsible investment organizations with respect to the role that banks can play to help address issues such as climate change, protection of biodiversity, promotion of sustainable forestry practices, implementing the recommendations of the Task Force on Climate-related Financial Disclosure, and other environmental issues important to its customers and communities where it operates. The Bank has an ongoing process of reviewing its practices in these areas.

Scotiabank has a number of environmentally focused products and services, including: an EcoEnergy Financing program designed to support personal and small business customers who wish to install small-scale renewable energy projects; and an auto loan product for hybrid, electric and clean diesel vehicles. As well, Scotiabank has the Commodities Derivatives group, which assists corporate clients by providing liquidity and hedge solutions in the carbon market.

Environmental Reporting

Scotiabank is a signatory to and participant in key global initiatives that advance transparency and disclosures in sustainability. The Bank's annual Environmental, Social and Governance (ESG) Report reflects several global sustainability disclosure standards, frameworks, and initiatives including, but not limited to: the Task Force on Climate-related Financial Disclosures (TCFD), CDP (formerly Carbon Disclosure Project), the Partnership for Carbon Accounting Financials (PCAF), the Sustainability Accounting Standards Board (SASB), the Global Reporting Initiative (GRI), the UN Global Compact (UNGC), and the Sustainable Development Goals (SDGs). ESG reporting indices for disclosures are found with the ESG Report on Scotiabank's website under Responsibility & Social Impact, ESG Publications and Policies.

Climate Change Risks – Taskforce on Climate Related Financial Disclosures (TCFD)

In 2018, Scotiabank announced its support of the Financial Stability Board Task Force on Climate-related Financial Disclosures. The implementation of the recommendations across Scotiabank is a multi-year journey.

Governance

Board Oversight

As the topic of climate change requires a multidisciplinary approach, the risks and opportunities it poses to the Bank are addressed by the Board of Directors and its committees. The Board of Directors approved the Bank's Climate Change Strategy in October 2019. In addition, the following Board committees provide ongoing oversight.

- *Risk Committee*: Provides oversight of key risks, including those affected by climate change. This includes review (and, where appropriate, recommendation to the Board for approval) of risk appetite limits and policy-oriented documents addressing credit risk, environmental risk, and operational risk as well as reporting on potentially material climate change risks.
- *Corporate Governance Committee*: Provides oversight of the ESG strategy, of which climate change is a key priority, and the annual ESG Report.
- *Audit & Conduct Review Committee*: Provides oversight of climate change-related disclosure in the Bank's financial reporting, including its Annual Report.

Management's Role

The Board of Directors is supported by the President and Chief Executive Officer (CEO) and Chief Risk Officer (CRO). The CRO has delegated their authority over the oversight of environmental and social risk to the Enterprise Core Risk Committee (ECRC) and its sub-committees. The Environmental & Social Risk Committee (ESRC), a sub-committee of ECRC, has primary responsibility for oversight of environmental risk. The ESRC provides effective oversight and challenge of the Bank's management of environmental and social risks. Its responsibilities include monitoring of the environmental risk profile, recommending approval of relevant environmental risk frameworks, policies, risk appetite statements and limits to the ECRC. It reports to the ECRC on risk related matters and to the Corporate ESG Committee on all other matters. The purpose of the Corporate ESG Committee is to assist the Bank in achieving its ESG objectives by providing strategic guidance and advice on the Bank's ESG priorities, commitments, and disclosures to the Bank's Operating Committee.

Strategy

In 2021, the Bank committed to establishing bank-wide, quantitative, time-bound targets for reducing GHG emissions associated with our underwriting and lending activities. Once such targets are established, the bank will report annually on plans and progress towards achieving these targets. Furthermore, the Bank joined the Net Zero Banking Alliance (NZBA), which reinforced the Bank's commitment in playing a significant role to finance the climate transition and support collaborative approaches between the public and private sectors to reach the goal of net-zero by 2050.

In addition, the Bank in 2019 committed to mobilizing $100 billion by 2025 to reduce the impacts of climate change. This includes lending, investing, finance and advisory services, as well as investments in the Bank's direct operations and communities where it operates, to help the Bank capitalize on the global transition to a low-carbon future. This commitment is supported by the creation of new products and services, as well as the issuance of our Green Bond (USD$500 million 3.5 year senior unsecured) in 2019 and our Sustainability Bond (USD$1 billion 3 year senior unsecured) in 2021. The Sustainable Finance Group within Global Banking and Markets continues to grow and works closely with Scotiabank partner teams to provide financial solutions and advice across sustainable finance products to corporate, financial, public sector and institutional clients across our global footprint.

Risk Management
The Bank considers environmental risk (including climate change risks) as a principal risk type. Climate change risk is a component of environmental risk. Climate change risk refers to the possibility that climate change issues associated with Scotiabank or its customers could negatively affect the Bank's performance by giving rise to or heighten credit, reputational, operational or legal risk. Climate change risks could be in the form of physical or transition risk. Examples of physical risk considerations include severe weather (e.g. floods, hurricanes, extreme cold or heat). Examples of transition risk considerations include policy/regulatory actions such as subsidies, taxes or increased fuel costs, as well as changing market conditions.

The Bank utilizes a comprehensive environmental risk management process where the identification, assessment and management of climate change risk is done through due diligence as part of the overall existing environmental risk assessment and credit adjudication processes.

Highlights in 2021 include the following:

- *Integration of new Climate Commitments into existing risk frameworks*
  - Implemented and approved an Environmental Risk Management Framework, which includes a standalone, climate-related risk appetite statement. The framework provides an overview of the key governance components that are in place to ensure that the Bank effectively manages its exposure to Environmental Risks in a manner that is consistent with industry standards and best practices and regulatory requirements.
  - Updated Bank-wide credit policies to include restrictions on coal and the Arctic National Wildlife Refuge. More information can be found on the Bank's ESG publications and policies website.
- *Integration of climate change risk assessment (CCRA) at the sector and borrower-levels*
  - The Bank standardized the process of performing CCRAs for all business banking borrowers, updated internal systems to track CCRAs, and provided training for banking and credit officers.
  - The CCRA process evaluates both the physical and transition risks a client may face, and their awareness and response (Quality of Management) to such risks. The Bank assessed its exposure to the sectors with the highest vulnerability to physical and transition climate risk drivers. The CCRA compliments the sector sensitivity analysis by capturing borrower level mitigation factors such as geography, location of assets, and climate-specific management strategies. The CCRA and climate sector vulnerability results have been included within industry reviews to assess climate risk drivers and determine their potential materiality.
- *Knowledge building on climate change risk and scenario analysis*
  - A module on climate change risk is delivered in the annual mandatory environmental risk training for all banking officers and credit adjudicators.
  - The Bank is developing a methodology for scenario analysis the Bank's business and retail banking portfolios. The methodology includes both physical and transition risks and uses internationally recognized climate change scenarios and models.
- *External collaboration with peers*
  - Scotiabank is a participant in industry groups to develop consistent methodologies and metrics for TCFD reporting.
  - Scotiabank is a participant in the United National Environment Program – Finance Initiative (UNEP FI) TCFD stage 3 pilot. The pilot is meant to harmonize industry-wide approaches for climate scenario analysis in bank lending portfolios.
  - Scotiabank is involved in the initiative to create a Canadian Transition Finance set of Principles and Transition Taxonomy.
  - Scotiabank is a member of the Institute of International Finance (IIF) Sustainable Finance Working Group
  - Established a $1.25 million five-year partnership with the Institute for Sustainable Finance at Queen's University to support education, professional training, research, and outreach to advance Canada's leadership in sustainable finance

Metrics and Targets
Scotiabank sets, monitors, and reports on climate change related performance and targets annually in Scotiabank's ESG Report. As part of Scotiabank's Climate Commitments, the Bank is tracking the initiatives that underlie its commitment as part of the metrics and targets it has adopted pursuant to these Commitments, including a target to reduce operational GHG emissions and to mobilize $100 billion to reduce the impacts of climate change.

Additionally, the Bank introduced an Environmental Performance Metric (EPM) that was included in the Enterprise Risk Appetite Framework as a risk appetite metric. The EPM is a composite measure of environmental risk based on sub-metrics which informs on reputational, credit, and operational categories. The metric will be internally reported quarterly, in accordance with other risk appetite metrics.

The process to calculate the Bank's credit exposures to high-carbon sectors is under development.

Data Risk

Data risk is the exposure to the adverse financial and non-financial consequences (e.g., revenue loss, reputational risk, regulatory risk, sub-optimal management decisions) caused by mismanagement, misunderstanding or misuse of the Bank's data assets. This risk may arise from a lack of data risk awareness; insufficient data risk oversight, governance and controls; inadequate data management and poor data quality; inferior data security and protection; and inappropriate, unintended or unethical data usage.

Data risk is inherent to the Bank's business, and when issues arise affecting the Bank's critical data, this can have significant negative strategic, business, financial, regulatory and/or reputational consequences. The Bank continues to evolve its data risk appetite statement, risk culture and expected ethical behaviours, with regards to data. A key area of focus is the ongoing implementation of data management and data-related risk management requirements. Key risk indicators are communicated through risk monitoring, assessment, and reporting activities.

The Data Risk Management Framework (DRMF) outlines the overarching guiding principles for data risk management and defines the governance structure of the enterprise data risk management program, recognizing the collaborative nature of data risk management and oversight. The Data Risk Management Policy (DRMP) categorizes and explains risks associated with data throughout the data lifecycle; outlines interaction model, roles and responsibilities for key stakeholders involved in managing the data risk across the organization; and sets out best practice principles for data

management and governance. The organizational units that participate in data risk management and/or data risk-related oversight as part of their mandates (e.g., Data Office, Cyber Security and Information Technology Risk, Privacy, etc.) align their respective frameworks, policies, standards and/or procedures with DRMF and DRMP.

Model Risk

Model risk is the risk of adverse financial (e.g., capital, losses, revenue) and reputational consequences arising from the design, development, implementation and/or use of a model. It can originate from inappropriate specifications; incorrect parameter estimates; flawed hypotheses and/or assumptions; mathematical computation errors; inaccurate, inappropriate or incomplete data; inappropriate, improper or unintended usage; and inadequate monitoring and/or controls.

The Bank's Model Risk Management Policy (MRMP) describes the overarching principles, policies, and procedures that provide the framework for managing model risk. All models, whether developed by the Bank or vendor-supplied, that meet the Bank's model definition are covered by this Policy. The MRMP also clearly defines roles and responsibilities for key stakeholders involved in the model risk management cycle. Organizational units involved in the Model Risk Management Cycle have unit-level procedures, where appropriate, governing those stages of the cycle that they are responsible for. The Enterprise Core Risk Committee (ECRC) provides oversight over the management of model risk and approves the MRMP.

Reputational Risk

Reputational risk is the risk that negative publicity regarding Scotiabank's conduct, business practices or associations, whether true or not, will adversely affect its revenues, operations or customer base, or require costly litigation or other defensive measures.

Negative publicity about an institution's business practices may involve any aspect of its operations, but usually relates to questions of business ethics and integrity, or quality of products and services. Such negative publicity has an impact on the Bank's brand and reputation.

Negative publicity and related reputational risk frequently arise as a by-product of some other kind of risk management control failure such as compliance and operational risks. In some cases, reputational risk can arise through no direct fault of an institution, but indirectly as a ripple-effect of an association or problems arising within the industry or external environment.

Reputational risk is managed and controlled throughout the Bank by the Scotiabank Code of Conduct (Code), governance practices and risk management programs, policies, procedures and training. Many relevant checks and balances are outlined in greater detail under other risk management sections, particularly Operational Risk, where reference is made to the Bank's well-established compliance program. All directors, officers and employees have a responsibility to conduct their activities in accordance with the Code, and in a manner that minimizes reputational risk and safeguards the Bank's reputation. While all employees, officers and directors are expected to protect the reputation of Scotiabank by complying with the Code, the activities of the Legal, Global Tax, Corporate Secretary, Global Communications, AML Risk, Global Compliance and Global Risk Management departments, and the Reputational Risk Committee, are particularly oriented to the management of reputational risk.

In providing credit, advice, or products to customers, or entering into associations, the Bank considers whether the transaction, relationship or association might give rise to reputational risk. The Bank has a Reputational Risk Policy, as well as policy and procedures for managing reputational and legal risk related to structured finance transactions. Global Risk Management plays a significant role in the identification and management of reputational risk related to credit underwriting. In addition, the Reputational Risk Committee is available to support Global Risk Management, as well as other risk management committees and business units, with their assessment of reputational risk associated with transactions, business initiatives, new products and services and sales practice issues.

The Reputational Risk Committee considers a broad array of factors when assessing transactions, so that the Bank meets, and will be seen to meet, high ethical standards. These factors include the extent, and outcome, of legal and regulatory due diligence pertinent to the transaction; the economic intent of the transaction; the effect of the transaction on the transparency of a customer's financial reporting; the need for customer or public disclosure; conflicts of interest; fairness issues; and public perception. The Reputational Risk Committee also holds quarterly meetings to review activities in the quarter, review metrics and discuss any emerging trends or themes.

The Reputational Risk Committee may impose conditions on customer transactions, including customer disclosure requirements to promote transparency in financial reporting, so that transactions meet Bank standards. In the event the Committee recommends not proceeding with a transaction and the sponsor of the transaction wishes to proceed, the transaction is referred to the Risk Policy Committee.

Strategic Risk

Strategic risk is the risk that the enterprise, business lines or corporate functions will make strategic choices that are ineffective or insufficiently resilient to changes in the business environment, or poorly execute such strategies.

The Board is ultimately responsible for oversight of strategic risk, by ensuring a robust strategic planning process and approving, on an annual basis, the strategic plan for the Bank. The Annual Strategy Report to the Board of Directors considers linkages between the Bank's Enterprise Risk Appetite Framework with the enterprise strategy, business line strategies and how the corporate functions support the Business Lines. The strategic planning process is managed by Enterprise Strategy.

The execution and evaluation of strategic plans is a fundamental element of the Risk Management Framework. On an ongoing basis, Heads of Business Lines and Control Functions identify, manage, and assess the internal and external risks that could impede achievement of, or progress of, strategic objectives. The executive management team regularly meets to evaluate the effectiveness of the Bank's strategic plan, and consider what amendments, if any, are required.

Controls and Accounting Policies

Controls and Procedures

Management's responsibility for financial information contained in this annual report is described on page 146.

Disclosure controls and procedures

The Bank's disclosure controls and procedures are designed to provide reasonable assurance that information is accumulated and communicated to the Bank's management, including the President and Chief Executive Officer and the Group Head and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

As of October 31, 2021, the Bank's management, with the participation of the President and Chief Executive Officer and the Group Head and Chief Financial Officer, evaluated the effectiveness of its disclosure controls and procedures, as defined under the rules adopted by the U.S. Securities and Exchange Commission (SEC) and the Canadian securities regulatory authorities, and have concluded that the Bank's disclosure controls and procedures are effective.

Internal control over financial reporting

Management of the Bank is responsible for establishing and maintaining adequate internal control over financial reporting. These controls include policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Bank;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB), and that receipts and expenditures are being made only in accordance with authorizations of management and directors of the Bank; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Bank's assets that could have a material effect on the financial statements.

All control systems contain inherent limitations, no matter how well designed. As a result, the Bank's management acknowledges that its internal control over financial reporting will not prevent or detect all misstatements due to error or fraud. In addition, management's evaluation of controls can provide only reasonable, not absolute, assurance that all control issues that may result in material misstatements, if any, have been detected.

Management assessed the effectiveness of internal control over financial reporting, using the Internal Control-Integrated Framework 2013 issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and based on that assessment concluded that internal control over financial reporting was effective as of October 31, 2021.

Changes in internal control over financial reporting

During the year ended October 31, 2021, there have been no changes in the Bank's internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the Bank's internal control over financial reporting.

Critical Accounting Policies and Estimates

The Bank's accounting policies are integral to understanding and interpreting the financial results reported in this annual report. Note 3 to the consolidated financial statements, summarizes the significant accounting policies used in preparing the Bank's consolidated financial statements. Certain of these policies require management to make estimates, assumptions and subjective judgements that are difficult, complex, and often relate to matters that are inherently uncertain. The policies discussed below are considered to be particularly important to the presentation of the Bank's financial position and results of operations, as changes in the estimates, assumptions and judgements could have a material impact on the Bank's consolidated financial statements. These estimates, assumptions and judgements are adjusted in the normal course of business to reflect changing underlying circumstances.

Allowance for credit losses

The allowance for credit losses, using an expected credit loss approach as required under IFRS 9, is estimated using complex models and incorporates inputs, assumptions and techniques that involve a high degree of management judgment. Under IFRS 9 expected credit loss methodology, an allowance is recorded for expected credit losses on financial assets regardless of whether there has been an actual loss event. The Bank recognizes an allowance at an amount equal to 12 month expected credit losses, if the credit risk at the reporting date has not increased significantly since initial recognition (Stage 1). When a financial asset experiences a significant increase in credit risk subsequent to origination but is not considered to be in default, it is included in Stage 2 and subject to lifetime expected credit losses. Financial assets that are in default are included in Stage 3. Similar to Stage 2, the allowance for credit losses for Stage 3 financial assets captures the lifetime expected credit losses.

The main drivers in allowance for credit loss changes that are subject to significant judgment include the following:

- Determination of point-in-time parameters such as probability of default (PD), loss given default (LGD) and exposure at default (EAD).
- Forecast of macroeconomic variables for multiple scenarios and probability weighting of the scenarios.
- Assessment of significant increase in credit risk.

Qualitative adjustments or overlays may also be made as temporary adjustments using expert credit judgment in circumstances where, in the Bank's view, the existing regulatory guidance, inputs, assumptions, and/or modelling techniques do not capture all relevant risk factors. In consideration of exceptional circumstances of COVID-19, the models in isolation may not capture all the uncertainty as well as the impact of the public support programs by the governments and central banks. The use of management overlays may require significant judgment that may impact the amount of allowance recognized.

Measurement of expected credit losses

The probability of default (PD), exposure at default (EAD), and loss given default (LGD) inputs used to estimate expected credit losses are modelled based on macroeconomic variables that are most closely related with credit losses in the relevant portfolio.

Details of these statistical parameters/inputs are as follows:

- PD – The probability of default is an estimate of the likelihood of default over a given time horizon. A default may only happen at a certain time over the remaining estimated life, if the facility has not been previously derecognized and is still in the portfolio.
- EAD – The exposure at default is an estimate of the exposure at a future default date, taking into account expected changes in the exposure after the reporting date, including repayments of principal and interest, whether scheduled by contract or otherwise, expected drawdowns on committed facilities, and accrued interest from missed payments.
- LGD – The loss given default is an estimate of the loss arising in the case where a default occurs at a given time. It is based on the difference between the contractual cash flows due and those that the lender would expect to receive, including from the realization of any collateral. It is usually expressed as a percentage of the EAD.

Forward-looking macroeconomic scenarios
The Bank uses a broad range of forward-looking economic information as inputs to its models of expected credit losses and the related allowance. These include real GDP, unemployment rates, central bank interest rates, and house-price indices. The allowance is determined using four probability-weighted, forward-looking scenarios. The Bank revised its allowance for credit losses (ACL) methodology in Q1, 2020, by adding an additional, more severe pessimistic forward-looking scenario. The Bank considers both internal and external sources of information and data in order to create unbiased projections and forecasts. The Bank prepares the scenarios using forecasts generated by Scotiabank Economics (SE). The forecasts are generated using both internally and externally developed models whose outputs are modified by SE as necessary to formulate a 'base case' view of the most probable future direction of economic developments; SE also develops a representative range of other alternative possible forecast scenarios. More specifically, the process involves the development of three additional economic scenarios to which relative probabilities are assigned. The development of the baseline and alternative scenarios is overseen by a governance committee that consists of internal stakeholders from across the Bank. The final baseline and alternative scenarios reflect significant review and oversight, and may incorporate judgment both in the determination of the scenarios' forecasts and the probability weights that are assigned to them.

Significant Increase in credit risk (SIR)
The assessment of SIR since origination of a financial asset considers borrower-specific quantitative and qualitative information without consideration of collateral, and the impact of forward-looking information. Quantitative models may not always be able to capture all reasonable and supportable information that may indicate a significant increase in credit risk. Qualitative factors may be assessed to supplement the gap. Examples of situations include changes in adjudication criteria for a particular group of borrowers; changes in portfolio composition and natural disaster events impacting certain portfolios.

For retail exposures, a significant increase in credit risk cannot be assessed using forward-looking information at an individual account level. Therefore, the assessment must be done at the segment level. Segment migration thresholds exist for each PD model by product which considers the proportionate change in PD as well as the absolute change in PD. The thresholds used for PD migration are reviewed and assessed at least annually, unless there is a significant change in credit risk management practices in which case the review is brought forward.

For Non-retail exposures the Bank uses an internal risk rating scale (IG codes) for its non-retail exposures. All non-retail exposures have an IG code assigned that reflects the probability of default of the borrower. Both borrower specific and non-borrower specific (i.e. macroeconomic) forward-looking information is considered and reflected in the IG rating. Significant increase in credit risk is evaluated based on the migration of the exposures among IG codes.

Fair value of financial instruments

All financial instruments are measured at fair value on initial recognition. Subsequent measurement of a financial instrument depends on its classification. The contractual cash flow characteristics of a financial instrument and the business model under which it is held determines such classification. Non-trading loans and receivables, certain securities and most financial liabilities are carried at amortized cost unless classified or designated as fair value through profit and loss or fair value through other comprehensive income at inception.

The fair value of a financial asset or liability is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants in the principal, or in its absence, the most advantageous market to which the Bank has access at the measurement date.

The Bank discloses the classification of all financial instruments carried at fair value in a hierarchy based on the determination of fair value. The best evidence of fair value for a financial instrument is the quoted price in an active market. Fair value based on unadjusted quoted market prices for identical instruments in active markets represents a Level 1 valuation. Quoted prices are not always available for over-the-counter (OTC) transactions, as well as transactions in inactive or illiquid markets. OTC transactions are valued using internal models that maximize the use of observable inputs are used to estimate fair value. The chosen valuation technique incorporates all the factors that market participants would take into account in pricing a transaction. When a fair value is based on all significant market observable inputs, the valuation is classified as Level 2. Financial instruments traded in a less active market have been valued using indicative market prices, the present value of cash flows or other valuation techniques. Fair value estimates normally do not consider forced or liquidation sales. Where financial instruments trade in inactive markets or when using models where observable parameters do not exist, significant management judgement is required for valuation methodologies and model inputs. Valuations that require the significant use of unobservable inputs are considered Level 3. The calculation of estimated fair value is based on market conditions at a specific point in time and therefore may not be reflective of future fair values.

The Bank has controls and processes in place to ensure that the valuation of financial instruments is appropriately determined. Global Risk Management (GRM) is responsible for the design and application of the Bank's risk management framework. GRM is independent of the Bank's business units and is overseen by Executive Management and the Board of Directors. Senior management committees within GRM oversee and establish standards for risk management processes that are critical in ensuring that appropriate valuation methodologies and policies are in place for determining fair value.

Where possible, valuations are based on quoted prices or observable inputs obtained from active markets. GRM oversees a monthly Independent Price Verification (IPV) process to ensure the reliability and accuracy of prices and inputs used in the determination of fair value. The IPV process is performed by price verification groups that are independent from the business. The Bank maintains an approved list of pricing sources that are used in the IPV process. These sources include, but are not limited to, brokers, dealers and consensus pricing services. The valuation policies relating to the IPV process require that all pricing or rate sources be external to the Bank. On a periodic basis, an independent assessment of pricing or rate sources is also performed by GRM to determine market presence or market representative levels.

Where quoted prices are not readily available, such as for transactions in over-the-counter markets, internal models that maximize the use of observable inputs are used to estimate fair value. An independent second line model risk management function within GRM oversees the vetting, approval and ongoing validation of valuation models used in determining fair value. Model development and validation processes are governed by the Bank's Model Risk Management Policy.

In determining fair value for certain instruments or portfolios of instruments, valuation adjustments or reserves may be required to arrive at a more accurate representation of fair value. The Bank's policy of applying valuation reserves to a portfolio of instruments is approved by a senior management committee. These reserves include adjustments for credit risk, bid-offer spreads, unobservable parameters, constraints on prices in inactive or illiquid markets and when applicable funding costs. The methodology for the calculation of valuation reserves are reviewed at least annually by senior management.

Valuation adjustments recorded against the fair value of financial assets and financial liabilities totaled $212 million as at October 31, 2021 (2020 – $469 million), net of any write-offs. The majority of the year-over-year change is due to the tightening of counterparty credit spreads during the year.

As at October 31, 2021, a net funding valuation adjustment (FVA) representing an excess of funding benefit adjustment over funding cost adjustment of $139 million (2020 – $108 million), pre-tax, was recorded for uncollateralized derivative instruments.

Employee benefits

The Bank provides pension and other benefit plans for eligible employees in Canada and internationally. Pension benefits are offered in the form of defined benefit pension plans (generally based on an employee's length of service and earnings), and in the form of defined contribution pension plans (where the Bank's contribution is fixed and there is no legal or constructive obligation to pay further amounts). Other benefits include post-retirement health care, dental care and life insurance, along with other long-term employee benefits such as long-term disability benefits.

The employee benefit expenses and the related benefit obligation are calculated using actuarial methods and certain actuarial assumptions. These assumptions are based on management's best estimate and are reviewed and approved annually. The most significant assumption is the discount rate used to determine the defined benefit obligation, which is set by reference to the yields on high quality corporate bonds that have durations that match the terms of the Bank's obligations. Separate discount rates are used to determine the annual benefit expense in Canada and the US. These rates are determined with reference to the yields on high quality corporate bonds with durations that match the various components of the annual benefit expense. The discount rate used to determine the annual benefit expense for all other plans is the same as the rate used to determine the defined benefit obligation. Other key assumptions include future compensation, health care costs, employee turnover, retirement age and mortality. When making these estimates, management considers expectations of future economic trends and business conditions, including inflation rates as well as other factors, such as plan specific experience and best practices.

Actual experience that differs from assumptions made by management will result in a net actuarial gain or loss recognized immediately in other comprehensive income except for other long-term employee benefits where they are recognized in the Consolidated Statement of Income.

Note 28 contains details of the Bank's employee benefit plans, such as the disclosure of pension and other benefit amounts, management's key assumptions, and a sensitivity analysis of changes in these assumptions on the employee benefit obligation and expense.

Corporate income taxes

Management exercises judgment in determining the provision for income taxes and deferred income tax assets and liabilities. The provision is based on management's expectations regarding the income tax consequences of transactions and events during the period. Management interprets the tax legislation for each jurisdiction in which the Bank operates and makes assumptions about the expected timing of the reversal of deferred income tax assets and liabilities. If management's interpretations of the legislation differ from those of the tax authorities or if the actual timing of the reversals of the deferred income tax assets and liabilities is not as anticipated, the provision for income taxes could increase or decrease in future periods.

The Bank maintains provisions for uncertain tax positions that it believes appropriately reflect the risk of tax positions under discussion, audit, dispute, or appeal with tax authorities, or which are otherwise considered to involve uncertainty. These provisions are made using the Bank's best estimate of the amount expected to be paid based on an assessment of all relevant factors, which are reviewed at the end of each reporting period. It is possible that additional liability and income tax expense could arise in the future, depending on the acceptance of the Bank's tax positions by the relevant tax authorities in the jurisdictions in which the Bank operates.

Note 27 of the 2021 consolidated financial statements contains further details with respect to the Bank's provisions for income taxes.

Structured entities

In the normal course of business, the Bank enters into arrangements with structured entities on behalf of its customers and for its own purposes. These structured entities can be generally categorized as multi-seller commercial paper conduits, Bank funding vehicles and structured finance entities. Further details are provided in the Off-balance sheet arrangements section on page 74.

Management is required to exercise judgement to determine whether a structured entity should be consolidated. This evaluation involves understanding the arrangements, determining whether decisions about the relevant activities are made by means of voting rights or other contractual arrangements, and determining whether the Bank controls the structured entity.

The Bank controls an investee when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. The three elements of control are:

- power over the investee;
- exposure, or rights, to variable returns from involvement with the investee; and
- the ability to use power over the investee to affect the amount of the Bank's returns.

This definition of control applies to circumstances:

- when voting rights or similar rights give the Bank power, including situations where the Bank holds less than a majority of voting rights or involving potential voting rights;
- when an investee is designed so that voting rights are not the dominant factor in deciding who controls the investee (i.e., relevant activities are directed by contractual arrangements);
- involving agency relationships; and
- when the Bank has control over specified assets of an investee.

The Bank does not control an investee when it is acting in an agent's capacity. The Bank assesses whether it is an agent by determining whether it is primarily engaged to act on behalf and for the benefit of another party or parties. Factors that the Bank considers in this assessment include the scope of its decision-making authority over the investee, the rights held by other parties, the remuneration to which it is entitled, and the Bank's exposure to variability of returns from other interests that it holds in the investee. The analysis uses both qualitative and quantitative analytical techniques and involves the use of a number of assumptions about the business environment in which the structured entity operates and the amount and timing of future cash flows. The Bank reassesses whether it controls an investee if facts and circumstances indicate that one or more of the three elements of control change. Management is required to exercise judgement to determine if a change in control event has occurred. During 2021, there were no change in control events that caused the Bank to change its control conclusion of its multi-seller conduits or other structured entities.

As described in Note 15 to the consolidated financial statements and in the discussion of off-balance sheet arrangements, the Bank does not control the two Canadian-based multi-seller conduits that it sponsors and they are not required to be consolidated on the Bank's Consolidated Statement of Financial Position. The Bank controls its U.S.-based multi-seller conduit and consolidates it on the Bank's Consolidated Statement of Financial Position.

Goodwill

For the purpose of impairment testing, goodwill acquired in a business combination is, on the acquisition date, allocated to each of the Bank's group of cash-generating units (CGU) that are expected to benefit from the particular acquisition.

Goodwill is not amortized but tested for impairment annually and when circumstances indicate that the carrying value may be impaired. At each reporting date, goodwill is reviewed to determine whether there is any indication of impairment. Each CGU to which goodwill is allocated for impairment testing purposes reflects the lowest level at which goodwill is monitored for internal management purposes.

The Bank determines the carrying value of the CGU using a regulatory capital approach based on credit, market, and operational risks, and leverage, consistent with the Bank's capital attribution for business line performance measurement. An impairment loss is recognized if the carrying amount of a CGU exceeds its recoverable amount. The recoverable amount is the greater of fair value less costs of disposal and value in use. If either fair value less costs of disposal or value in use exceeds the carrying amount, there is no need to determine the other. The recoverable amount for the CGU has been determined using the fair value less costs of disposal method. In arriving at such value an appropriate valuation model is used which considers various factors including normalized net income, price earnings multiples and control premium. These calculations are corroborated by valuation multiples, quoted share prices for publicly traded subsidiaries or other available fair value indicators. An impairment loss, in respect of goodwill, is not reversed.

Significant judgement is applied in determining the recoverable amounts of the CGU and assessing whether certain events or circumstances constitute objective evidence of impairment.

Goodwill was assessed for annual impairment based on the methodology as at July 31, 2021, and no impairment was determined to exist. Additionally, there were no impairment indicators noted as of October 31, 2021.

Indefinite life intangible assets

Intangible assets with indefinite useful lives are not amortized but tested for impairment annually and when circumstances indicate that the carrying value may be impaired. Intangible assets are reviewed at each reporting date to determine whether there is any indication of impairment.

The recoverable amount is the greater of fair value less costs of disposal and value in use. If either fair value less costs of disposal or value in use exceeds the carrying amount, there is no need to determine the other. Value in use method is used by the Bank to determine the recoverable amount of the intangible asset. In determining value in use, an appropriate valuation model is used which considers factors such as management-approved cash flow projections, discount rate and terminal growth rate. An impairment loss is recognized if the carrying amount of the intangible asset exceeds its recoverable amount. Impairment losses recognized in prior periods are reassessed at each reporting period for any indication that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the intangible asset's carrying amount does not exceed the carrying amount that would have been determined if no impairment loss had been recognized.

The recoverable amount is significantly impacted by the discount rate and the terminal value. Significant judgement is applied in determining the intangible asset's recoverable amount and assessing whether certain events or circumstances constitute objective evidence of impairment.

Intangible assets were assessed for annual impairment based on the methodology as at July 31, 2021, and no impairment was determined to exist. Additionally, there were no impairment indicators noted as of October 31, 2021.

Derecognition of financial assets

Financial assets are derecognized when the contractual rights to the cash flows from the asset have expired, which occurs with repayment by the borrower or upon substantial modification of the asset terms. Assets are also derecognized when the Bank transfers the contractual rights to receive the cash flows from the financial asset, or has assumed an obligation to pay those cash flows to an independent third-party, and the Bank has transferred substantially all the risks and rewards of ownership of that asset to an independent third-party.

Management must apply judgement in determining whether a modification of the terms of the financial asset is considered to be substantial. For loans, this includes the nature of the modification and the extent of changes to terms including interest rate, authorized amount, term or type of underlying collateral.

Management must also apply judgement in determining, based on specific facts and circumstances, whether the Bank has retained or transferred substantially all the risks and rewards of ownership of the financial asset. Where substantially all the risks and rewards of ownership of the financial asset are neither retained nor transferred, the Bank derecognizes the transferred asset only if it has lost control over that asset. If the Bank retains control over the asset, it will continue to recognize the asset to the extent of its continuing involvement.

The majority of assets transferred under repurchase agreements, securities lending agreements, securitizations of fully insured Canadian residential mortgages, and securitizations of personal lines of credit, credit cards and auto loans do not qualify for derecognition. The Bank continues to record the transferred assets on the Consolidated Statement of Financial Position as secured financings.

Further information on derecognition of financial assets can be found in Note 14 of the consolidated financial statements.

Provisions

The Bank recognizes a provision if, as a result of a past event, the Bank has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Probable in this context means more likely than not. Significant judgement is required in determining whether a present obligation exists and in estimating the probability, timing, and amount of any future outflows.

In the ordinary course of business, the Bank and its subsidiaries are routinely defendants in, or parties to a number of pending and threatened legal actions and regulatory proceedings, including actions brought on behalf of various classes of claimants. In view of the inherent difficulty of predicting the outcome of such matters, the Bank cannot state what the eventual outcome of such matters will be.

Legal provisions are established when it becomes probable that the Bank will incur an expense related to a legal action and the amount can be reliably estimated. Such provisions are recorded at the best estimate of the amount required to settle any obligation related to these legal actions as at the balance sheet date, taking into account the risks and uncertainties surrounding the obligation. Management and internal and external experts are involved in estimating any amounts that may be required. The actual costs of resolving these claims may vary significantly from the amount of the legal provisions. The Bank's estimate involves significant judgement, given the varying stages of the proceedings, the fact that the Bank's liability, if any, has yet to be determined and the fact that the underlying matters will change from time to time. As such, there is a possibility that the ultimate resolution of those legal actions may be material to the Bank's consolidated results of operations for any particular reporting period.

Future Accounting Developments

The Bank actively monitors developments and changes in accounting standards from the IASB, as well as requirements from the other regulatory bodies, including OSFI. The Bank is currently assessing the impact of adoption of new standards issued by the IASB on its consolidated financial statements and also evaluating the alternative elections available on transition.

Effective November 1, 2023

Insurance contracts

On May 18, 2017, the IASB issued IFRS 17 Insurance Contracts, which provides a comprehensive principle-based framework for the measurement and presentation of all insurance contracts. The new standard will replace IFRS 4 Insurance Contracts and requires insurance contracts to be measured using current fulfillment cash flows and for revenue to be recognized as the service is provided over the coverage period. The standard is required to be adopted retrospectively; if this is impractical, the modified retrospective or fair value method may be used.

On June 25, 2020, the IASB issued amendments to IFRS 17. The amendments are designed to make it easier for companies to explain their financial performance, reduce costs due to simplification of some requirements in the standard and ease transition by deferring the effective date of the standard by two years. The standard will be effective as of November 1, 2023 for the Bank. The Bank continues to monitor developments related to the standard and industry discussions on the application of the standard.

The implementation of IFRS 17 is a multi-year project consisting of technology implementation and policy and process changes. The project has an established structure and governance along with a Project Management Office to assist the Executive Steering and Project Operations Committees. The committees are comprised of representatives from Global Finance, Global Insurance Actuarial Services, Information Technology and the Insurance Business Operation. The Bank has selected its technology partner in implementing the system to capture data and prepare additional disclosures, including for the separate insurance legal entity financial statements, under the new standard. The Bank continues to assess and formulate the actuarial and accounting policies under IFRS 17 to quantify the impact of adopting the new standard.

Regulatory Developments

The Bank continues to monitor and respond to global regulatory developments relating to a broad spectrum of topics, in order to ensure that control functions and business lines are responsive on a timely basis and business impacts, if any, are minimized. A high-level summary of some of the key regulatory developments that have the potential of impacting the Bank's operations is included in the Legal and compliance risk section of this MD&A and below, as may be updated by quarterly reports.

Regulatory Initiatives Impacting Financial Services in Canada

On September 22, 2021, Quebec's Act to Modernize Legislative Provisions respecting the Protection of Personal Information received royal assent and will come into force over the next three years. This law reforms the Quebec private-sector privacy act. It is modeled after the initial versions of GDPR, and introduced key changes, including increased enforcement powers for the Commission d'accès à l'information, significant new monetary penalties for non-compliance, risk assessments for data transfers outside Quebec, mandatory breach notification and record keeping, and itemized express consent requirements. The Bank is engaging business stakeholders and key groups to consider the law's application.

The Consumer Privacy Protection Act (Bill C11) did not proceed when the federal election was called on September 20, 2021. It is expected that a substantially similar bill will be introduced in the near future.

The Governments of Ontario, British Columbia and Alberta opened public consultations regarding the introduction of new privacy legislation (in the case of Ontario), and amendments to the current private sector privacy statutes (in British Columbia and Alberta). The Bank's response to these consultations is being coordinated through the Canada Bankers Association.

The Commodity Futures Trading Commission (CFTC) Position Limit and Cross-Border Rules

The CFTC has adopted final rules addressing the cross-border application of certain swap dealer provisions of the Commodity Exchange Act, which supersede prior CFTC interpretive guidance and staff advisories. The final rule addresses the cross-border application of the registration thresholds and certain requirements applicable to swap dealers and major swap participants; and establishes a formal process for requesting comparability determinations for such requirements from the CFTC. The Bank has implemented changes ahead of the September 14, 2021 compliance date.

The CFTC has approved final position limit rules for twenty-five commodity derivatives and their linked cash-settled futures, options on futures, and economically equivalent swaps. The compliance dates are tiered between January 2022 and January 2023. The Bank is on track with the implementation.

The Securities Exchange Commission (SEC) SBSD Registration and Compliance Date

The SEC has published a series of compliance dates for entities who are Security-Based Swap Dealers (SBSDs) and Major Security-Based Swap Participants as part of its SBSD regulations. On August 6, 2021, firms were required to determine if they had surpassed a de minimis threshold of dealing activity in security-based swaps, which determines whether firms have a registration requirement. Firms who surpassed this de minimis threshold were required to register with the SEC as a SBSD by no later than November 1, 2021. Several new rules apply to firms upon their registration as a SBSD. These rules include security-based swap margin, segregation, recordkeeping and reporting, business conduct, trade acknowledgment and risk mitigation rules. Additionally, November 8, 2021 was the compliance deadline to start trade reporting to a Security-Based Swap Data Repository.

The Bank conditionally registered with the SEC as a SBSD on November 1, 2021. While a majority of the SEC requirements became effective on November 1 and November 8, the SBSD Regulatory Project will continue to operate to work towards the future security-based swap trade reporting compliance dates and to achieve the Target Operating Model to implement certain strategic solutions for the program.

Canadian Anti-Money Laundering (AML) Regulations

The Bank has taken measures to comply with the requirements under Canada's amended Proceeds of Crime (Money Laundering) and Terrorist Financing Act (PCMLTFA) and regulations that took effect on June 1, 2021 in alignment with FINTRAC's announcements, and continues to work proactively to implement the remainder of the new regime with the aim of protecting the Canadian financial system and our communities.

Advisory Committee on Open Banking

On August 4, 2021, the Minister of Finance released the Advisory Committee on Open Banking's final report. The Advisory Committee's report provides a road map for the Government of Canada to create and launch an open banking system by January 2023 and makes recommendations on how to modernize the Canadian financial services sector and implement a secure open banking system. The Committee suggests a two-staged open banking implementation plan, an initial low-risk open banking system to be designed and implemented by January 2023, followed by a period of ongoing evolution and administration of the system. To ensure open banking is available to as many Canadians as possible, the Advisory Committee recommends that all federally regulated banks be required to participate in the first phase of open banking in Canada. Provincially regulated financial institutions such as credit unions should have the opportunity to join on a voluntary basis. The Minister of Finance has not announced any next steps beyond the release of the Advisory Committee's report. The Bank is actively monitoring these developments and has established a committee that is responsible for leading engagements with key groups, including the Government of Canada, to discuss and provide feedback on the development of a regulatory framework for open banking.

Non-GAAP and Other Financial Measures Disclosure

On May 27, 2021, the Canadian Securities Administrators (CSA) published National Instrument 52-112 Non-GAAP and Other Financial Measures Disclosure (NI 52-112) and its related companion policy (the Companion Policy), which provides binding disclosure requirements for non-GAAP (generally accepted accounting principles) and certain other financial measures. NI 52-112 and the Companion Policy replaces the existing CSA guidance on non-GAAP financial measure disclosure, and governs how issuers present non-GAPP financial measures, non-GAAP ratios, and other financial measures, including capital management measures, supplementary financial measures and "total of segments" measures. The new requirements are intended to provide additional information to help investors understand the context of such measures in the Bank's public disclosures. NI 52-112 applies to disclosures by reporting issuers for financial years ending on or after October 15, 2021. The Bank has implemented all requirements in its year-end disclosure documents, including this MD&A.

Interest Rate Benchmark Reform

In July 2017, the UK Financial Conduct Authority (FCA), which began regulating the London Interbank Offered Rate (LIBOR) in 2013, announced that after December 31, 2021, it would stop making efforts to sustain the rate. The FCA and regulators in other jurisdictions have urged markets to transition away from the use of LIBOR and other interbank offered rates (IBORs), including the Canadian Dollar Offered Rate (CDOR), in favour of alternative risk-free rates (RFRs). RFRs are overnight rates that differ inherently from LIBOR and other interbank offered rates, lacking a term structure and a credit component. In July 2021, the Alternative Reference Rate Committee (ARRC) announced its formal recommendation of the CME Group's forward-looking Secured Overnight Financing Rate (SOFR) term rates to introduce an alternative to USD LIBOR based on an overnight rate but with a term structure. The ARRC's recommendation marks the completion of the ARRC's Paced Transition Plan, the series of specific steps established by the ARRC in 2017 to encourage the adoption of SOFR.

On March 5, 2021, the FCA confirmed that the publication of most tenors of USD LIBOR (i.e., overnight, one-month, three-month, six-month and 12-month LIBOR) ceases immediately following a final publication on June 30, 2023. The scheduled cessation date for GBP, JPY, CHF and EUR LIBOR, and the one-week and two-month tenors of USD LIBOR remains December 31, 2021.

The announcement provides certainty regarding the future of the various LIBOR currencies and tenors. It also serves to set the fixed spread adjustment that will be used in industry standard fallback provisions for both derivative and cash products. While the most widely used USD LIBOR tenors will continue to be published in their current form until June 30, 2023, the Federal Reserve Board has advised that banks should no longer write USD LIBOR linked contracts after December 31, 2021, and sooner, where practicable. Similarly, on June 22, 2021, OSFI stated that Federally Regulated Financial Institutions should stop using USD LIBOR as a reference rate as soon as possible and should not enter into transactions using USD LIBOR as a reference rate after December 31, 2021.

On November 16, 2021, the FCA confirmed that it will allow the temporary use of "synthetic" sterling and yen LIBOR rates in all legacy LIBOR contracts, other than cleared derivatives, that have not been amended by December 31, 2021.

The Bank has established an enterprise-wide program (the Transition Program) to ensure a smooth transition from LIBOR and other IBORs to RFRs. The Transition Program is focusing on identifying and quantifying our exposures to various IBORs, providing the capability to trade products referencing alternative RFRs and evaluating our existing contract language when the LIBOR ceases to exist. The Bank considers transition risks as part of a comprehensive change program to ensure that systems, processes and strategy provide for a smooth transition from the use of legacy rates and supports trading in RFRs.

In developing transition strategies, the Transition Program has integrated into its plans recommendations from industry groups and regulatory bodies, such as the ARRC in the US and the FCA regarding the timing of key transition activities, such as ceasing to issue certain LIBOR-based products and incorporating fallback language in specific instruments.

The Bank continues to work towards meeting the regulatory and industry-wide recommended milestones on cessation of LIBOR and work with clients and counterparties to issue products based on RFRs where viable.

The International Accounting Standards Board (IASB) has approached the impact of Interest Rate Benchmark Reform on financial reporting in two phases. Phase 1 addressed issues affecting financial reporting in the period before the replacement of an existing interest rate benchmark with an alternative RFR; and Phase 2 focused on issues that might affect financial reporting when an existing interest rate benchmark is replaced with an RFR. The IASB issued the Phase 1 and Phase 2 amendments in September 2019 and August 2020, respectively. The Bank adopted the Phase 1 amendments effective November 1, 2019, and early adopted the Phase 2 amendments effective November 1, 2020.

Further information on interest rate benchmark reform can be found in Note 4 of the consolidated financial statements.

Related Party Transactions

Compensation of key management personnel

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Bank, directly or indirectly, and comprise the directors of the Bank, the President and Chief Executive Officer, certain direct reports of the President and Chief Executive Officer and Group Heads.

T60 Compensation of the Bank key management personnel

For the year ended October 31 ($ millions)	2021	2020
Salaries and cash incentives(1)	**$ 21**	$ 19
Equity-based payment(2)	**30**	30
Pension and other benefits(1)	**3**	6
Total	**$ 54**	$ 55

(1) Expensed during the year.
(2) Awarded during the year.

Directors can use some or all of their director fees earned to buy common shares of the Bank at market rates through the Director's Share Purchase Plan.Non-officer directors may elect to receive all or a portion of their fees in the form of deferred stock units which vest immediately. Refer to Note 26 – Share-based payments for further details of these plans.

T61 Loans and deposits of key management personnel

Loans are currently granted to key management personnel at market terms and conditions.

As at October 31 ($ millions)	2021	2020
Loans	**$ 11**	$ 15
Deposits	**$ 5**	$ 11

The Bank's committed credit exposure to companies controlled by directors totaled $252.8 million as at October 31, 2021 (October 31, 2020 – $177.6 million) while actual utilized accounts were $189.6 million (October 31, 2020 – $115.9 million).

Transactions with associates and joint ventures

In the ordinary course of business, the Bank provides normal banking services and enters into transactions with its associated and other related corporations on terms similar to those offered to non-related parties. If these transactions are eliminated on consolidation, they are not disclosed as related party transactions. Transactions between the Bank and its associated companies and joint ventures also qualify as related party transactions and are as follows:

T62 Transactions with associates and joint ventures

As at and for the year ended October 31 ($ millions)	2021	2020
Net income / (loss)	**$ (85)**	$ (75)
Loans	**191**	203
Deposits(1)	**229**	234
Guarantees and commitments	**$ 154**	$ 23

(1) Prior period amount has been restated to conform with current period presentation.

Scotiabank principal pension plan

The Bank manages assets of $4.7 billion (October 31, 2020 – $4.1 billion) which is a portion of the Scotiabank principal pension plan assets and earned $6.6 million (October 31, 2020 – $7.2 million) in fees.

Oversight and governance

The oversight responsibilities of the Audit and Conduct Review Committee (ACRC) with respect to related party transactions include reviewing policies and practices for identifying transactions with related parties that may materially affect the Bank, and reviewing the procedures for ensuring compliance with the Bank Act for related party transactions. The Bank Act requirements encompass a broader definition of related party transactions than is set out in IFRS. The Bank has various procedures in place to ensure that related party information is identified and reported to the ACRC on a semi-annual basis. The ACRC is provided with detailed reports that reflect the Bank's compliance with its established procedures.

The Bank's Internal Audit department carries out audit procedures as necessary to provide the ACRC with reasonable assurance that the Bank's policies and procedures to identify, authorize and report related party transactions are appropriately designed and operating effectively.

Supplementary Data

Geographic Information

T63 Net income by geographic segment

For the fiscal years ($ millions)	2021 Canada	U.S.	Mexico	Peru	Chile	Colombia	Caribbean and Central America	Other Inter-national	Total	2020 Canada	U.S.	Mexico	Peru	Chile	Colombia	Caribbean and Central America	Other Inter-national	Total	2019[2] Canada	U.S.	Mexico	Peru	Chile	Colombia	Caribbean and Central America	Other Inter-national
Net interest income	$ 9,182	$742	$ 1,668	$1,186	$1,507	$ 692	$ 1,345	$ 639	$16,961	$ 8,515	$ 763	$1,661	$1,705	$1,415	$ 812	$ 1,734	$ 715	$17,320	$ 7,630	$ 720	$1,684	$1,576	$1,613	$ 1,017	$ 2,143	$ 794
Non-interest income	9,190	953	714	531	666	383	664	1,190	14,291	8,085	1,375	724	605	677	449	753	1,348	14,016	7,304	1,189	671	790	806	567	1,048	1,482
Provision for credit losses	255	(33)	334	586	205	195	221	45	1,808	2,271	128	644	971	639	666	570	195	6,084	981	(16)	335	523	436	362	352	54
Non-interest expenses	9,627	915	1,202	662	943	682	1,343	1,244	16,618	8,952	1,080	1,298	827	973	813	1,589	1,324	16,856	8,275	870	1,306	846	1,166	920	1,933	1,421
Income tax expense	1,909	120	184	104	204	80	103	167	2,871	967	192	98	116	78	(74)	45	121	1,543	1,082	267	121	248	185	117	324	128
Subtotal	6,581	693	662	365	821	118	342	373	9,955	4,410	738	345	396	402	(144)	283	423	6,853	4,596	788	593	749	632	185	582	673
Net income attributable to non-controlling interests in subsidiaries	(10)	–	14	2	200	48	77	–	331	(28)	–	7	16	91	(87)	76	–	75	1	–	14	(11)	179	124	101	–
Net income attributable to equity holders of the Bank	$ 6,591	$693	$ 648	$ 363	$ 621	$ 70	$ 265	$ 373	$ 9,624	$ 4,438	$ 738	$ 338	$ 380	$ 311	$ (57)	$ 207	$ 423	$ 6,778	$ 4,595	$ 788	$ 579	$ 760	$ 453	$ 61	$ 481	$ 673
Adjustments[1]	169	–	–	6	20	–	4	5	204	(76)	–	7	8	48	22	28	11	48	58	–	–	50	72	79	296	6
Adjusted net income (loss) attributable to equity holders of the Bank[1]	$ 6,760	$693	$ 648	$ 369	$ 641	$ 70	$ 269	$ 378	$ 9,828	$ 4,362	$ 738	$ 345	$ 388	$ 359	$ (35)	$ 235	$ 434	$ 6,826	$ 4,653	$ 788	$ 579	$ 810	$ 525	$ 140	$ 777	$ 679

(1) Refer to Non-GAAP Measures on page 17.
(2) Prior period amounts have been restated to conform with current period presentation.

T64 Loans and acceptances by geography

As at October 31 ($ billions)	2021	2020	2019
Canada			
Atlantic provinces	$ 21.6	$ 21.5	$ 22.1
Quebec	34.3	31.7	30.6
Ontario	246.9	217.7	203.0
Manitoba and Saskatchewan	19.6	18.2	17.9
Alberta	53.5	53.7	53.5
British Columbia	81.8	71.3	66.5
	457.7	414.1	393.6
U.S.	43.4	44.0	44.3
Mexico	31.7	31.3	31.9
Peru	19.4	22.1	21.7
Chile	45.0	46.9	45.6
Colombia	12.0	10.9	11.7
Other International			
Latin America	11.1	11.3	10.2
Europe	9.1	9.5	9.1
Caribbean and Central America	20.6	23.3	30.2
Asia and Other	13.0	11.7	13.2
	53.8	55.8	62.7
	$ 663.0	$ 625.1	$ 611.5
Total allowance for credit losses	(5.7)	(7.7)	(5.1)
Total loans and acceptances net of allowance for credit losses	$ 657.3	$ 617.4	$ 606.4

T65 Gross impaired loans by geographic segment

As at October 31 ($ millions)	2021	2020	2019
Canada	**$ 1,090**	$ 1,127	$ 1,133
U.S.	**24**	116	94
Mexico	**758**	570	485
Peru	**699**	824	642
Chile	**512**	775	844
Colombia	**418**	459	505
Other International	**955**	1,182	1,432
Total	**$ 4,456**	$ 5,053	$ 5,135

T66 Provision against impaired financial instruments by geographic segment

For the fiscal years ($ millions)	2021	2020	2019
Canada	**$ 705**	$ 1,198	$ 984
U.S.	**2**	6	(1)
Mexico	**450**	400	291
Peru	**1,061**	484	446
Chile	**181**	582	403
Colombia	**522**	322	422
Other International	**385**	476	354
Total	**$ 3,306**	$ 3,468	$ 2,899

T67 Cross-border exposure to select countries(1)

As at October 31 ($ millions)	Loans	Trade	Interbank deposits	Government and other securities	Investment in subsidiaries and affiliates	Other	2021 Total	2020 Total
Asia								
China	$ 746	$ 1,937	$ 506	$ 1,030	$ 74	$ 15	**$ 4,308**	$ 4,480
India	1,361	169	–	–	–	6	**1,536**	1,360
Singapore	3,776	147	110	–	–	26	**4,059**	2,896
Hong Kong	1,432	22	12	37	–	37	**1,540**	1,892
Japan	387	65	8	4,292	–	13	**4,765**	4,961
Others(2)	467	1	62	–	459	20	**1,009**	1,451
Total	$ 8,169	$ 2,341	$ 698	$ 5,359	$ 533	$ 117	**$ 17,217**	$ 17,040
Latin America								
Chile	$ 3,964	$ 1,093	$ 2,667	$ 266	$ 5,188	$ 316	**$ 13,494**	$ 14,492
Mexico	4,534	209	–	551	4,714	139	**10,147**	9,805
Brazil	7,664	1,423	–	12	267	355	**9,721**	9,819
Peru	2,834	87	–	102	4,234	139	**7,396**	9,552
Colombia	3,158	329	–	133	1,039	27	**4,686**	3,507
Others(3)	100	8	–	–	469	–	**577**	646
Total	$ 22,254	$ 3,149	$ 2,667	$ 1,064	$ 15,911	$ 976	**$ 46,021**	$ 47,821
Caribbean and Central America								
Panama	$ 4,311	$ 21	$ 59	$ 86	$ 189	$ 14	**$ 4,680**	$ 4,731
Costa Rica	1,109	53	–	–	969	8	**2,139**	2,688
Dominican Republic	938	154	21	–	775	11	**1,899**	2,089
Others(4)	945	76	–	–	1,329	–	**2,350**	2,769
Total	$ 7,303	$ 304	$ 80	$ 86	$ 3,262	$ 33	**$ 11,068**	$ 12,277
As at October 31, 2021	**$ 37,726**	**$ 5,794**	**$ 3,445**	**$ 6,509**	**$ 19,706**	**$ 1,126**	**$ 74,306**	
As at October 31, 2020	$ 38,395	$ 5,295	$ 3,727	$ 6,884	$ 21,179	$ 1,658	$ 77,138	

(1) Cross-border exposure represents a claim, denominated in a currency other than the local one, against a borrower in a foreign country on the basis of ultimate risk.
(2) Includes Indonesia, Macau, Malaysia, South Korea, Thailand and Taiwan.
(3) Includes Venezuela and Uruguay.
(4) Includes other Caribbean countries, such as Bahamas, Barbados, Jamaica, Trinidad & Tobago, and Turks & Caicos.

Credit Risk

T68 Loans and acceptances by type of borrower

As at October 31 ($ billions)	2021	2020	2019
Residential mortgages	$ 319.7	$ 284.7	$ 268.2
Personal loans	91.5	93.7	98.6
Credit cards	12.5	14.8	17.8
Personal	$ 423.7	$ 393.2	$ 384.6
Financial services			
Non-bank	$ 29.4	$ 25.7	$ 28.8
Bank(1)	4.4	4.2	5.2
Wholesale and retail	26.8	26.1	27.6
Real estate and construction	44.8	37.7	32.4
Energy(2)	10.0	12.4	13.3
Transportation	9.3	10.4	9.5
Automotive	10.3	12.6	14.0
Agriculture	15.8	14.6	13.3
Hospitality and leisure	4.1	5.1	4.4
Mining	4.3	6.3	6.8
Metals	2.4	2.2	2.9
Utilities(2)	18.9	16.6	14.1
Health care	5.5	6.0	6.1
Technology and media	15.9	16.7	13.4
Chemicals	1.5	1.7	2.4
Food and beverage	9.8	8.5	8.5
Forest products	2.0	2.4	3.1
Other(3)	18.7	17.6	16.0
Sovereign(4)	5.4	5.1	5.1
Business and government	$ 239.3	$ 231.9	$ 226.9
	$ 663.0	$ 625.1	$ 611.5
Total allowance for credit losses	(5.7)	(7.7)	(5.1)
Total loans and acceptances net of allowance for credit losses	$ 657.3	$ 617.4	$ 606.4

(1) Deposit taking institutions and securities firms.
(2) Prior periods have been restated to conform to the current presentation.
(3) Other related to $1.3 in financing products, $2.6 in services and $6.3 in wealth management (2020 – $1.7, $2.8, and $4.5 respectively).
(4) Includes central banks, regional and local governments, and supranational agencies.

T69 Off-balance sheet credit instruments

As at October 31 ($ billions)	2021	2020	2019
Commitments to extend credit(1)	$ 239.8	$ 235.4	$ 211.9
Standby letters of credit and letters of guarantee	37.3	34.8	35.6
Securities lending, securities purchase commitments and other	61.8	54.9	52.2
Total	$ 338.9	$ 325.1	$ 299.7

(1) Excludes commitments which are unconditionally cancellable at the Bank's discretion at any time.

T70 Changes in net impaired loans

For the fiscal years ($ millions)	2021	2020	2019
Gross impaired loans			
Balance at beginning of year	**$ 5,053**	$ 5,135	$ 5,130
Net additions			
New additions	**4,154**	4,362	4,213
Acquisition-related	**–**	–	18
Declassifications	**(62)**	(96)	(45)
Payments	**(375)**	(435)	(469)
Sales	**(10)**	(10)	(58)
	3,707	3,821	3,659
Write-offs			
Residential mortgages	**(111)**	(97)	(99)
Personal loans	**(1,833)**	(1,611)	(1,818)
Credit cards	**(1,543)**	(1,163)	(1,325)
Business and government	**(414)**	(534)	(274)
	(3,901)	(3,405)	(3,516)
Foreign exchange and other	**(403)**	(498)	(138)
Balance at end of year	**$ 4,456**	$ 5,053	$ 5,135
Allowance for credit losses on financial instruments			
Balance at beginning of year	**$ 1,957**	$ 1,595	$ 1,677
Provision for credit losses	**3,306**	3,468	2,899
Write-offs	**(3,901)**	(3,405)	(3,516)
Recoveries			
Residential mortgages	**27**	18	26
Personal loans	**274**	230	285
Credit cards	**203**	188	218
Business and government	**39**	28	45
	543	464	574
Foreign exchange and other	**(250)**	(165)	(39)
Balance at end of year	**$ 1,655**	$ 1,957	$ 1,595
Net impaired loans			
Balance at beginning of year	**$ 3,096**	$ 3,540	$ 3,453
Net change in gross impaired loans	**(597)**	(82)	5
Net change in allowance for credit losses on impaired financial instruments	**302**	(362)	82
Balance at end of year	**$ 2,801**	$ 3,096	$ 3,540

T71 Provision for credit losses

For the fiscal years ($ millions)	2021	2020	2019
New provisions	**$ 3,912**	$ 4,031	$ 3,599
Reversals	**(63)**	(99)	(126)
Recoveries	**(543)**	(464)	(574)
Provision for credit losses on impaired financial instruments (Stage 3)	**3,306**	3,468	2,899
Provision for credit losses – performing (Stage 1 and 2)	**(1,498)**	2,616	128
Total Provision for credit losses	**$ 1,808**	$ 6,084	$ 3,027

T72 Provision for credit losses against impaired financial instruments by type of borrower

For the fiscal years ($ millions)	2021	2020	2019
Residential mortgages	$ 117	$ 192	$ 59
Personal loans	1,429	1,651	1,480
Credit cards	1,361	968	1,078
Personal	2,907	2,811	2,617
Financial services			
Non-bank	2	5	–
Bank	–	–	–
Wholesale and retail	126	137	85
Real estate and construction	51	72	48
Energy	15	104	–
Transportation	25	64	8
Automotive	1	17	13
Agriculture	24	48	20
Hospitality and leisure	7	1	–
Mining	–	1	1
Metals	31	29	7
Utilities	6	15	14
Health care	10	49	24
Technology and media	17	23	16
Chemicals	1	1	–
Food and beverage	19	25	25
Forest products	28	12	5
Other	35	52	19
Sovereign	1	2	(3)
Business and government	399	657	282
Provision for credit losses on impaired financial instruments	**$ 3,306**	$ 3,468	$ 2,899

T73 Impaired loans by type of borrower

	2021			2020		
As at October 31 ($ millions)	Gross	Allowance for credit losses	Net	Gross	Allowance for credit losses	Net
Residential mortgages	$ 1,331	$ 374	$ 957	$ 1,490	$ 392	$ 1,098
Personal loans	833	626	207	1,032	820	212
Credit cards	–	–	–	–	–	–
Personal	$ 2,164	$ 1,000	$ 1,164	$ 2,522	$ 1,212	$ 1,310
Financial services						
Non-bank	34	6	28	44	9	35
Bank	2	2	–	2	2	–
Wholesale and retail	473	209	264	516	229	287
Real estate and construction	339	67	272	268	62	206
Energy(1)	86	18	68	260	47	213
Transportation	79	21	58	183	53	130
Automotive	36	20	16	47	25	22
Agriculture	207	72	135	263	98	165
Hospitality and leisure	85	7	78	20	2	18
Mining	21	2	19	30	3	27
Metals	96	35	61	120	39	81
Utilities(1)	129	4	125	129	6	123
Health care	68	25	43	68	22	46
Technology and media	58	20	38	34	10	24
Chemicals	6	3	3	6	2	4
Food and beverage	91	34	57	112	45	67
Forest products	94	25	69	28	11	17
Other	166	81	85	162	75	87
Sovereign	222	4	218	239	5	234
Business and government	$ 2,292	$ 655	$ 1,637	$ 2,531	$ 745	$ 1,786
Total	$ 4,456	$ 1,655	$ 2,801	$ 5,053	$ 1,957	$ 3,096

(1) Prior periods have been restated to conform to the current presentation.

T74 Total credit risk exposures by geography (1)(2)

As at October 31 ($ millions)	2021 Non-Retail Drawn	Non-Retail Undrawn	Non-Retail Other exposures(3)	Retail	Total	2020 Total
Canada	$ 134,334	$ 57,420	$ 38,100	$ 409,894	$ 639,748	$ 621,409
U.S.	109,493	40,452	44,479	–	194,424	188,210
Chile	25,136	1,449	4,070	24,122	54,777	56,738
Mexico	22,264	1,483	2,476	12,199	38,422	39,187
Peru	16,319	1,134	2,976	7,723	28,152	33,931
Colombia	7,102	534	1,073	5,737	14,446	13,123
Other International						
Europe	21,091	7,116	18,972	–	47,179	51,770
Caribbean and Central America	14,616	1,411	981	10,665	27,673	31,420
Latin America (other)	11,742	1,241	513	584	14,080	13,647
Other	23,815	4,973	6,283	33	35,104	34,789
Total	$ 385,912	$ 117,213	$ 119,923	$ 470,957	$ 1,094,005	$ 1,084,224
As at October 31, 2020	$ 406,724	$ 115,420	$ 120,903	$ 441,177	$ 1,084,224	

(1) Geographic segmentation is based upon the location of the ultimate risk of the credit exposure. Includes all credit risk portfolios and excludes equities and other assets.
(2) Amounts represent exposure at default.
(3) Includes off-balance sheet lending instruments such as letters of credit, letters of guarantee, derivatives, securitization and repo-style transactions after collateral.

T75 AIRB credit risk exposures by maturity (1)(2)

Residual maturity as at October 31 ($ millions)	2021 Drawn	Undrawn	Other exposures(3)	Total	2020 Total
Non-retail					
Less than 1 year	$ 174,909	$ 35,047	$ 80,094	$ 290,050	$ 295,172
One to 5 years	129,437	75,518	26,019	230,974	238,071
Over 5 years	17,332	3,158	6,050	26,540	32,344
Total non-retail	$ 321,678	$ 113,723	$ 112,163	$ 547,564	$ 565,587
Retail					
Less than 1 year	$ 26,316	$ 23,664	$ –	$ 49,980	$ 54,638
One to 5 years	249,195	–	–	249,195	215,271
Over 5 years	16,230	–	–	16,230	14,892
Revolving credits(4)	37,134	27,356	–	64,490	68,978
Total retail	$ 328,875	$ 51,020	$ –	$ 379,895	$ 353,779
Total	$ 650,553	$ 164,743	$ 112,163	$ 927,459	$ 919,366
As at October 31, 2020	$ 643,835	$ 164,695	$ 110,836	$ 919,366	

(1) Remaining term to maturity of the credit exposure. Includes all credit risk portfolios and excludes equity securities and other assets.
(2) Exposure at default, before credit risk mitigation.
(3) Off-balance sheet lending instruments, such as letters of credit, letters of guarantee, securitization, derivatives and repo-style transactions after collateral.
(4) Credit cards and lines of credit with unspecified maturity.

T76 Total credit risk exposures and risk-weighted assets

As at October 31 ($ millions)	2021 AIRB Exposure at Default(2)	2021 AIRB Risk-weighted assets	2021 Standardized(1) Exposure at Default(2)	2021 Standardized(1) Risk-weighted assets	2021 Total Exposure at Default(2)	2021 Total Risk-weighted assets	2020 Total Exposure at Default(2)	2020 Total Risk-weighted assets
Non-retail								
Corporate								
Drawn	$ 171,497	$ 79,338	$ 52,545	$ 48,717	$ 224,042	$ 128,055	$ 222,347	$ 132,409
Undrawn	108,300	39,390	3,475	3,391	111,775	42,781	105,623	38,432
Other(3)	59,914	12,488	2,423	2,417	62,337	14,905	55,828	14,970
	339,711	131,216	58,443	54,525	398,154	185,741	383,798	185,811
Bank								
Drawn	15,737	2,794	3,048	2,466	18,785	5,260	20,977	5,199
Undrawn	4,662	1,026	15	15	4,677	1,041	8,785	1,154
Other(3)	8,494	924	1	1	8,495	925	11,051	1,405
	28,893	4,744	3,064	2,482	31,957	7,226	40,813	7,758
Sovereign								
Drawn	134,444	3,928	8,641	737	143,085	4,665	163,400	6,174
Undrawn	761	72	–	–	761	72	1,012	103
Other(3)	1,163	38	15	15	1,178	53	4,550	52
	136,368	4,038	8,656	752	145,024	4,790	168,962	6,329
Total Non-retail								
Drawn	321,678	86,060	64,234	51,920	385,912	137,980	406,724	143,782
Undrawn	113,723	40,488	3,490	3,406	117,213	43,894	115,420	39,689
Other(3)	69,571	13,450	2,439	2,433	72,010	15,883	71,429	16,427
	$ 504,972	$ 139,998	$ 70,163	$ 57,759	$ 575,135	$ 197,757	$ 593,573	$ 199,898
Retail								
Retail residential mortgages								
Drawn	$ 261,655	$ 19,114	$ 54,617	$ 21,458	$ 316,272	$ 40,572	$ 281,362	$ 38,655
	261,655	19,114	54,617	21,458	316,272	40,572	281,362	38,655
Secured lines of credit								
Drawn	20,278	2,938	–	–	20,278	2,938	20,922	3,834
Undrawn	19,984	897	–	–	19,984	897	18,292	1,002
	40,262	3,835	–	–	40,262	3,835	39,214	4,836
Qualifying retail revolving exposures								
Drawn	14,415	7,958	–	–	14,415	7,958	14,598	8,330
Undrawn	27,356	3,111	–	–	27,356	3,111	31,264	3,530
	41,771	11,069	–	–	41,771	11,069	45,862	11,860
Other retail								
Drawn	32,527	17,317	36,445	26,869	68,972	44,186	71,460	44,608
Undrawn	3,680	1,706	–	–	3,680	1,706	3,279	1,043
	36,207	19,023	36,445	26,869	72,652	45,892	74,739	45,651
Total retail								
Drawn	328,875	47,327	91,062	48,327	419,937	95,654	388,342	95,427
Undrawn	51,020	5,714	–	–	51,020	5,714	52,835	5,575
	$ 379,895	$ 53,041	$ 91,062	$ 48,327	$ 470,957	$ 101,368	$ 441,177	$ 101,002
Securitization exposures	16,727	3,024	4,238	1,329	20,965	4,353	25,200	5,555
Trading derivatives	25,865	5,637	1,083	1,034	26,948	6,671	24,274	6,886
CVA derivatives	–	3,957	–	–	–	3,957	–	5,330
Subtotal	$ 927,459	$ 205,657	$ 166,546	$ 108,449	$ 1,094,005	$ 314,106	$ 1,084,224	$ 318,671
Equities	4,563	4,436	–	–	4,563	4,436	3,109	2,931
Other assets(4)	–	–	61,737	28,054	61,737	28,054	56,401	28,160
Total credit risk, before scaling factor	$ 932,022	$ 210,093	$ 228,283	$ 136,503	$ 1,160,305	$ 346,596	$ 1,143,734	$ 349,762
Add-on for 6% scaling factor(5)	–	12,186	–	–	–	12,186	–	12,242
Total credit risk	$ 932,022	$ 222,279	$ 228,283	$ 136,503	$ 1,160,305	$ 358,782	$ 1,143,734	$ 362,004

(1) Portfolios under the Standardized Approach are reported net of specific allowances for credit losses, and effective 2021, net of collateral amounts treated under the Comprehensive Approach.
(2) Outstanding amount for on-balance sheet exposures and loan equivalent amount for off-balance sheet exposures, before credit risk mitigation.
(3) Other exposures include off-balance sheet lending instruments, such as letters of credit, letters of guarantee, non-trading derivatives and repo-style exposures, after collateral.
(4) Other assets include amounts related to central counterparties.
(5) Basel Committee imposed a scaling factor (6%) on risk-weighted assets for Internal Ratings-Based credit risk portfolios.

Revenues and Expenses

T77 Volume/rate analysis of change in net interest income

($ millions)	Increase (decrease) due to change in: 2021 versus 2020			Increase (decrease) due to change in: 2020 versus 2019		
	Average volume	**Average rate**	**Net change**	Average volume	Average rate	Net change
Net interest income						
Total earning assets	**$ (545)**	**$ (4,181)**	**$ (4,726)**	$ 1,957	$ (5,029)	$ (3,072)
Total interest-bearing liabilities	**284**	**(4,651)**	**(4,367)**	1,300	(4,515)	(3,215)
Change in net interest income	**$ (829)**	**$ 470**	**$ (359)**	$ 657	$ (514)	$ 143
Assets						
Deposits with banks	**$ 60**	**$ (292)**	**$ (232)**	$ 307	$ (821)	$ (514)
Trading assets	**53**	**(201)**	**(148)**	28	140	168
Securities purchased under resale agreements	**(19)**	**(89)**	**(108)**	30	(246)	(216)
Investment securities	**(193)**	**(227)**	**(420)**	390	(761)	(371)
Loans:						
Residential mortgages	**886**	**(796)**	**90**	426	(634)	(208)
Personal loans	**(266)**	**(730)**	**(996)**	(108)	(607)	(715)
Credit cards	**(602)**	**(292)**	**(894)**	(212)	90	(122)
Business and government	**(464)**	**(1,554)**	**(2,018)**	1,096	(2,190)	(1,094)
Total loans	**(446)**	**(3,372)**	**(3,818)**	1,202	(3,341)	(2,139)
Total earning assets	**$ (545)**	**$ (4,181)**	**$ (4,726)**	$ 1,957	$ (5,029)	$ (3,072)
Liabilities						
Deposits:						
Personal	**$ 194**	**$ (1,419)**	**$ (1,225)**	$ 176	$ (721)	$ (545)
Business and government	**34**	**(2,798)**	**(2,764)**	791	(2,952)	(2,161)
Banks	**(38)**	**(239)**	**(277)**	186	(620)	(434)
Total deposits	**190**	**(4,456)**	**(4,266)**	1,153	(4,293)	(3,140)
Obligations related to securities sold under repurchase agreements	**(32)**	**(65)**	**(97)**	58	(152)	(94)
Subordinated debentures	**(24)**	**(36)**	**(60)**	(8)	(46)	(54)
Other interest-bearing liabilities	**150**	**(94)**	**56**	97	(24)	73
Total interest-bearing liabilities	**$ 284**	**$ (4,651)**	**$ (4,367)**	$ 1,300	$ (4,515)	$ (3,215)

T78 Provision for income and other taxes

For the fiscal years ($ millions)	**2021**	2020	2019	**2021 versus 2020**
Income taxes				
Income tax expense	**$ 2,871**	$ 1,543	$ 2,472	**86.1%**
Other taxes				
Payroll taxes	**407**	437	439	**(6.9)**
Business and capital taxes	**511**	517	515	**(1.2)**
Harmonized sales tax and other	**404**	388	386	**4.1**
Total other taxes	**1,322**	1,342	1,340	**(1.5)**
Total income and other taxes (1)	**$ 4,193**	$ 2,885	$ 3,812	**45.3%**
Net income before income taxes	**$ 12,826**	$ 8,396	$ 11,270	**52.8%**
Effective income tax rate (%) (2)	**22.4**	18.4	21.9	**4.0**
Total tax rate (%) (3)	**29.6**	29.6	30.2	**–**

(1) Comprising $2,754 of Canadian taxes (2020 – $1,658; 2019 – $1,998) and $1,439 of foreign taxes (2020 – $1,227; 2019 – $1,814).
(2) Refer to Glossary on page 141 for the description of the measure.
(3) Total income and other taxes as a percentage of net income before income and other taxes.

T79 Assets under administration and management (1)

($ billions)	2021	2020	2019
Assets under administration			
Personal			
Retail brokerage	**$ 201.0**	$ 152.6	$ 153.6
Investment management and trust	**144.7**	130.6	121.6
	345.7	283.2	275.2
Mutual funds	**225.2**	195.5	205.3
Institutional	**82.0**	78.2	77.9
Total (2)	**$ 652.9**	$ 556.9	$ 558.4
Assets under management			
Personal	**$ 76.3**	$ 58.9	$ 57.7
Mutual funds	**206.9**	179.3	188.6
Institutional	**62.6**	51.6	55.3
Total (2)	**$ 345.8**	$ 289.8	$ 301.6

(1) Refer to Glossary on page 141 for the description of the measure.
(2) Prior period amounts have been restated to appropriately reflect certain intercompany items.

T80 Changes in assets under administration and management (1)

As at October 31 ($ billions)	2021	2020	2019
Assets under administration			
Balance at beginning of year	**$ 556.9**	$ 558.4	$ 517.6
Net inflows (outflows) (2)	**31.0**	3.3	6.9
Impact of market changes, including foreign currency translation	**65.0**	(4.8)	33.9
Balance at end of year (3)	**$ 652.9**	$ 556.9	$ 558.4

(1) Refer to Glossary on page 141 for the description of the measure.
(2) Includes impact of business acquisitions/dispositions of nil (2020 – $(13.9); 2019 – $(3.1)).
(3) Prior period amounts have been restated to appropriately reflect certain intercompany items.

As at October 31 ($ billions)	2021	2020	2019
Assets under management			
Balance at beginning of year	**$ 289.8**	$ 301.6	$ 280.6
Net inflows (outflows) (1)	**9.5**	(12.4)	13.8
Impact of market changes, including foreign currency translation	**46.5**	0.6	7.2
Balance at end of year (2)	**$ 345.8**	$ 289.8	$ 301.6

(1) Includes impact of business acquisitions/dispositions of nil (2020 – (13.9); 2019 – nil).
(2) Prior period amounts have been restated to appropriately reflect certain intercompany items.

T81 Fees paid to the shareholders' auditors

For the fiscal years ($ millions)	2021	2020	2019
Audit services	**$ 25.9**	$ 25.6	$ 32.6
Audit-related services	**2.1**	2.9	1.3
Tax services outside of the audit scope	**–**	–	–
Other non-audit services	**0.4**	0.3	0.5
Total	**$ 28.4**	$ 28.8	$ 34.4

Selected Quarterly Information

T82 Selected quarterly information

As at and for the quarter ended	2021 Q4	2021 Q3	2021 Q2	2021 Q1	2020 Q4	2020 Q3	2020 Q2	2020 Q1
Operating results ($ millions)								
Net interest income	**4,217**	**4,217**	**4,176**	**4,351**	4,258	4,253	4,417	4,392
Non-interest income	**3,470**	**3,540**	**3,560**	**3,721**	3,247	3,481	3,539	3,749
Total revenue	**7,687**	**7,757**	**7,736**	**8,072**	7,505	7,734	7,956	8,141
Provision for credit losses	**168**	**380**	**496**	**764**	1,131	2,181	1,846	926
Non-interest expenses	**4,271**	**4,097**	**4,042**	**4,208**	4,057	4,018	4,363	4,418
Income tax expense	**689**	**738**	**742**	**702**	418	231	423	471
Net income	**2,559**	**2,542**	**2,456**	**2,398**	1,899	1,304	1,324	2,326
Net income attributable to common shareholders	**2,411**	**2,426**	**2,289**	**2,265**	1,745	1,332	1,243	2,262
Operating performance								
Basic earnings per share ($)	**1.98**	**2.00**	**1.89**	**1.87**	1.44	1.10	1.03	1.86
Diluted earnings per share ($)	**1.97**	**1.99**	**1.88**	**1.86**	1.42	1.04	1.00	1.84
Return on equity (%) (1)	**14.8**	**15.0**	**14.8**	**14.2**	11.0	8.3	7.9	14.2
Productivity ratio (%) (1)	**55.6**	**52.8**	**52.2**	**52.1**	54.1	52.0	54.8	54.3
Net interest margin (%) (2)	**2.17**	**2.23**	**2.26**	**2.27**	2.22	2.10	2.35	2.45
Financial position information ($ billions)								
Cash and deposits with financial institutions	**86.3**	**75.9**	**52.0**	**89.5**	76.5	59.0	103.9	69.3
Trading assets	**146.3**	**141.1**	**144.2**	**141.8**	117.8	123.8	121.5	144.7
Loans	**637.0**	**627.7**	**608.2**	**603.6**	603.3	613.4	625.2	592.3
Total assets	**1,184.8**	**1,163.4**	**1,125.2**	**1,164.1**	1,136.5	1,169.9	1,247.1	1,154.0
Deposits	**797.3**	**794.4**	**756.7**	**769.0**	750.8	768.0	797.7	763.9
Common equity	**64.8**	**64.7**	**63.5**	**63.4**	62.8	62.9	64.3	63.5
Preferred shares and other equity instruments	**6.0**	**5.3**	**4.5**	**5.3**	5.3	5.3	3.6	3.9
Assets under administration (1)(3)	**652.9**	**636.4**	**622.8**	**598.1**	556.9	556.9	530.4	552.8
Assets under management (1)(3)	**345.8**	**340.8**	**328.7**	**311.7**	289.8	291.8	276.9	296.2
Capital and liquidity measures								
Common Equity Tier 1 (CET1) capital ratio (%)	**12.3**	**12.2**	**12.3**	**12.2**	11.8	11.3	10.9	11.4
Tier 1 capital ratio (%)	**13.9**	**13.7**	**13.6**	**13.6**	13.3	12.8	11.9	12.5
Total capital ratio (%)	**15.9**	**15.7**	**15.7**	**15.7**	15.5	14.9	14.0	14.6
Leverage ratio (%)	**4.8**	**4.8**	**4.7**	**4.7**	4.7	4.6	4.4	4.0
Risk-weighted assets ($ billions)	**416.1**	**414.2**	**404.7**	**406.8**	417.1	430.5	446.2	420.7
Liquidity coverage ratio (LCR) (%)	**124**	**123**	**129**	**129**	138	141	132	127
Net stable funding ratio (NSFR) (%)	**110**	**112**	**112**	**115**	n/a	n/a	n/a	n/a
Credit quality								
Net impaired loans ($ millions)	**2,801**	**2,976**	**3,178**	**3,285**	3,096	3,361	3,473	3,233
Allowance for credit losses ($ millions) (4)	**5,731**	**6,232**	**6,893**	**7,810**	7,820	7,403	6,079	5,095
Gross impaired loans as a % of loans and acceptances (1)	**0.67**	**0.73**	**0.81**	**0.84**	0.81	0.81	0.78	0.77
Net impaired loans as a % of loans and acceptances (1)	**0.42**	**0.46**	**0.50**	**0.52**	0.50	0.53	0.53	0.52
Provision for credit losses as a % of average net loans and acceptances (annualized) (1)(5)	**0.10**	**0.24**	**0.33**	**0.49**	0.73	1.36	1.19	0.61
Provision for credit losses on impaired loans as a % of average net loans and acceptances (annualized) (1)(5)	**0.31**	**0.53**	**0.80**	**0.49**	0.54	0.58	0.56	0.55
Net write-offs as a % of average net loans and acceptances (annualized) (1)	**0.34**	**0.62**	**0.76**	**0.43**	0.41	0.47	0.47	0.54
Adjusted results (2)								
Adjusted net income ($ millions)	**2,716**	**2,560**	**2,475**	**2,418**	1,938	1,308	1,371	2,344
Adjusted diluted earnings per share ($)	**2.10**	**2.01**	**1.90**	**1.88**	1.45	1.04	1.04	1.83
Adjusted return on equity (%)	**15.6**	**15.1**	**14.9**	**14.4**	11.3	8.3	8.2	13.9
Adjusted productivity ratio (%)	**52.8**	**52.5**	**51.9**	**51.8**	53.3	51.4	54.0	53.4
Adjusted provision for credit losses as a % of average net loans and acceptances (5)	**0.10**	**0.24**	**0.33**	**0.49**	0.73	1.36	1.19	0.51
Common share information								
Closing share price ($) (TSX)	**81.14**	**77.87**	**78.27**	**68.20**	55.35	55.01	55.80	72.28
Shares outstanding (millions)								
Average – Basic	**1,215**	**1,215**	**1,213**	**1,212**	1,211	1,211	1,212	1,214
Average – Diluted	**1,224**	**1,223**	**1,223**	**1,237**	1,246	1,245	1,222	1,247
End of period	**1,215**	**1,215**	**1,214**	**1,212**	1,211	1,211	1,211	1,213
Dividends paid per share ($)	**0.90**	**0.90**	**0.90**	**0.90**	0.90	0.90	0.90	0.90
Dividend yield (%) (1)	**4.5**	**4.5**	**4.9**	**5.7**	6.4	6.5	5.9	4.9
Market capitalization ($ billions) (TSX)	**98.6**	**94.6**	**95.0**	**82.7**	67.1	66.6	67.6	87.7
Book value per common share ($) (1)	**53.28**	**53.26**	**52.29**	**52.28**	51.85	51.91	53.05	52.33
Market value to book value multiple (1)	**1.5**	**1.5**	**1.5**	**1.3**	1.1	1.1	1.1	1.4
Price to earnings multiple (trailing 4 quarters) (1)	**10.5**	**10.8**	**12.4**	**12.5**	10.2	9.6	9.1	10.5

(1) Refer to Glossary on page 141 for the description of the measure.
(2) Refer to page 17 for a discussion of non-GAAP measures.
(3) Prior period amounts have been restated to appropriately reflect certain intercompany items.
(4) Includes allowance for credit losses on all financial assets – loans, acceptances,off-balance sheet exposures, debt securities, and deposits with financial institutions.
(5) Includes provision for credit losses on certain financial assets – loans, acceptances and off-balance sheet exposures.

Ten-Year Statistical Review

T83 Condensed Consolidated Statement of Financial Position

As at October 31 ($ millions)	2021(1)	2020(1)	2019(1)	2018(1)	2017	2016	2015	2014	2013	2012
Assets										
Cash, deposits with financial institutions and Precious metals	**$ 87,078**	$ 77,641	$ 50,429	$ 65,460	$ 65,380	$ 54,786	$ 84,477	$ 64,016	$ 62,218	$ 59,724
Trading assets	**146,312**	117,839	127,488	100,262	98,464	108,561	99,140	113,248	96,489	87,596
Securities purchased under resale agreements and securities borrowed	**127,739**	119,747	131,178	104,018	95,319	92,129	87,312	93,866	82,533	66,189
Investment securities	**75,199**	111,389	82,359	78,396	69,269	72,919	43,216	38,662	34,319	33,376
Loans, net of allowance	**636,986**	603,263	592,483	551,834	504,369	480,164	458,628	424,309	402,215	352,578
Other(2)	**111,530**	106,587	102,224	98,523	82,472	87,707	83,724	71,565	65,870	68,762
	$ 1,184,844	$ 1,136,466	$ 1,086,161	$ 998,493	$ 915,273	$ 896,266	$ 856,497	$ 805,666	$ 743,644	$ 668,225
Liabilities										
Deposits	**$ 797,259**	$ 750,838	$ 733,390	$ 676,534	$ 625,367	$ 611,877	$ 600,919	$ 554,017	$ 517,887	$ 465,689
Obligations related to securities sold under repurchase agreements and securities lent	**123,469**	137,763	124,083	101,257	95,843	97,083	77,015	88,953	77,508	56,968
Subordinated debentures	**6,334**	7,405	7,252	5,698	5,935	7,633	6,182	4,871	5,841	10,143
Other(2)	**184,890**	169,957	151,244	147,324	126,503	121,852	118,902	108,614	97,021	95,760
	1,111,952	1,065,963	1,015,969	930,813	853,648	838,445	803,018	756,455	698,257	628,560
Common equity	**64,750**	62,819	63,638	61,044	55,454	52,657	49,085	44,965	40,165	34,335
Preferred shares and other equity instruments	**6,052**	5,308	3,884	4,184	4,579	3,594	2,934	2,934	4,084	4,384
Non-controlling interests in subsidiaries	**2,090**	2,376	2,670	2,452	1,592	1,570	1,460	1,312	1,138	946
Total equity	**72,892**	70,503	70,192	67,680	61,625	57,821	53,479	49,211	45,387	39,665
	$ 1,184,844	$ 1,136,466	$ 1,086,161	$ 998,493	$ 915,273	$ 896,266	$ 856,497	$ 805,666	$ 743,644	$ 668,225

(1) The amounts for the years ended October 31, 2018 to October 31, 2021 have been prepared in accordance with IFRS 9; prior period amounts have not been restated.
(2) The amounts for the years ended October 31, 2021 and October 31, 2020 have been prepared in accordance with IFRS 16; prior year amounts have not been restated.

T84 Condensed Consolidated Statement of Income

For the year ended October 31 ($ millions)	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Revenue										
Net interest income(1)(2)	**$ 16,961**	$ 17,320	$ 17,177	$ 16,191	$ 15,035	$ 14,292	$ 13,092	$ 12,305	$ 11,350	$ 9,970
Non-interest income(1)(3)	**14,291**	14,016	13,857	12,584	12,120	12,058	10,957	11,299	9,949	9,676
Total revenue	**31,252**	31,336	31,034	28,775	27,155	26,350	24,049	23,604	21,299	19,646
Provision for credit losses(1)	**1,808**	6,084	3,027	2,611	2,249	2,412	1,942	1,703	1,288	1,252
Non-interest expenses(2)(3)	**16,618**	16,856	16,737	15,058	14,630	14,540	13,041	12,601	11,664	10,436
Income before taxes	**12,826**	8,396	11,270	11,106	10,276	9,398	9,066	9,300	8,347	7,958
Income tax expense	**2,871**	1,543	2,472	2,382	2,033	2,030	1,853	2,002	1,737	1,568
Net income	**$ 9,955**	$ 6,853	$ 8,798	$ 8,724	$ 8,243	$ 7,368	$ 7,213	$ 7,298	$ 6,610	$ 6,390
Net income attributable to non-controlling interests in subsidiaries	**331**	75	408	176	238	251	199	227	231	196
Net income attributable to equity holders of the Bank	**$ 9,624**	$ 6,778	$ 8,390	$ 8,548	$ 8,005	$ 7,117	$ 7,014	$ 7,071	$ 6,379	$ 6,194
Preferred shareholders and other equity instrument holders	**233**	196	182	187	129	130	117	155	217	220
Common shareholders	**$ 9,391**	$ 6,582	$ 8,208	$ 8,361	$ 7,876	$ 6,987	$ 6,897	$ 6,916	$ 6,162	$ 5,974

(1) The amounts for the years ended October 31, 2018 to October 31, 2021 have been prepared in accordance with IFRS 9; prior year amounts have not been restated.
(2) The amounts for the years ended October 31, 2021 and October 31, 2020 have been prepared in accordance with IFRS 16; prior year amounts have not been restated.
(3) The amounts for the years ended October 31, 2019 to October 31, 2021 have been prepared in accordance with IFRS 15; prior year amounts have not been restated.

T85 Consolidated Statement of Changes in Equity

For the year ended October 31 ($ millions)	2021	2020	2019	2018	2017	2016	2015
Common shares							
Balance at beginning of year	**$ 18,239**	$ 18,264	$ 18,234	$ 15,644	$ 15,513	$ 15,141	$ 15,231
Issued	**268**	59	255	2,708	313	391	104
Purchased for cancellation	**–**	(84)	(225)	(118)	(182)	(19)	(194)
Balance at end of year	**$ 18,507**	$ 18,239	$ 18,264	$ 18,234	$ 15,644	$ 15,513	$ 15,141
Retained earnings							
Balance at beginning of year	**46,345**	44,439	41,414	38,117	34,752	31,316	28,609
IFRS adjustment	**–**	–	(58)	(564)	–	–	–
Restated balances	**46,345**	44,439	41,356	37,553	34,752	31,316	28,609
Net income attributable to common shareholders of the Bank	**9,391**	6,582	8,208	8,361	7,876	6,987	6,897
Common dividends	**(4,371)**	(4,363)	(4,260)	(3,985)	(3,668)	(3,468)	(3,289)
Purchase of shares for cancellation and premium on redemption	**–**	(330)	(850)	(514)	(827)	(61)	(761)
Other	**(11)**	17	(15)	(1)	(16)	(22)	(140)(1)
Balance at end of year	**$ 51,354**	$ 46,345	$ 44,439	$ 41,414	$ 38,117	$ 34,752	$ 31,316
Accumulated other comprehensive income (loss)							
Balance at beginning of year	**(2,125)**	570	992	1,577	2,240	2,455	949
IFRS adjustment	**–**	–	–	51	–	–	–
Restated balances	**(2,125)**	570	992	1,628	2,240	2,455	949
Cumulative effect of adopting new accounting policies	**–**	–	–	–	–	–	(5)(2)
Other comprehensive income (loss)	**(3,134)**	(2,668)	(422)	(693)	(663)	(215)	1,511
Other	**(74)**	(27)	–	57	–	–	–
Balance at end of year	**$ (5,333)**	$ (2,125)	$ 570	$ 992	$ 1,577	$ 2,240	$ 2,455
Other reserves							
Balance at beginning of year	**360**	365	404	116	152	173	176
Share-based payments(3)	**7**	5	7	6	8	7	14
Other	**(145)**	(10)	(46)	282	(44)	(28)	(17)
Balance at end of year	**$ 222**	$ 360	$ 365	$ 404	$ 116	$ 152	$ 173
Total common equity	**$ 64,750**	$ 62,819	$ 63,638	$ 61,044	$ 55,454	$ 52,657	$ 49,085
Preferred shares and other equity instruments							
Balance at beginning of year	**5,308**	3,884	4,184	4,579	3,594	2,934	2,934
Net income attributable to preferred shareholders and other equity instrument holders of the Bank	**233**	196	182	187	129	130	117
Preferred and other equity instrument dividends	**(233)**	(196)	(182)	(187)	(129)	(130)	(117)
Issued	**2,003**	1,689	–	300	1,560	1,350	–
Redeemed	**(1,259)**	(265)	(300)	(695)	(575)	(690)	–
Balance at end of year	**$ 6,052**	$ 5,308	$ 3,884	$ 4,184	$ 4,579	$ 3,594	$ 2,934
Non-controlling interests							
Balance at beginning of year	**2,376**	2,670	2,452	1,592	1,570	1,460	1,312
IFRS adjustment	**–**	–	–	(97)	–	–	–
Restated balances	**2,376**	2,670	2,452	1,495	1,570	1,460	1,312
Net income attributable to non-controlling interests	**331**	75	408	176	238	251	199
Distributions to non-controlling interests	**(123)**	(148)	(150)	(199)	(133)	(116)	(86)
Effect of foreign exchange and others	**(494)**	(221)	(40)	980	(83)	(25)	35
Balance at end of year	**$ 2,090**	$ 2,376	$ 2,670	$ 2,452	$ 1,592	$ 1,570	$ 1,460
Total equity at end of year	**$ 72,892**	$ 70,503	$ 70,192	$ 67,680	$ 61,625	$ 57,821	$ 53,479

(1) Includes retrospective adjustments primarily related to foreign currency translation on Allowance for Credit Losses with respect to periods prior to 2013 ($152).
(2) To reflect the adoption of the own credit risk provisions of IFRS 9 pertaining to financial liabilities designated at fair value through profit or loss.
(3) Represents amounts on account of share-based payments (refer to Note 26 in the consolidated financial statements).

T86 Consolidated Statement of Comprehensive Income

For the year ended October 31 ($ millions)	2021	2020	2019	2018	2017	2016	2015
Net income	**$ 9,955**	$ 6,853	$ 8,798	$ 8,724	$ 8,243	$ 7,368	$ 7,213
Other comprehensive income (loss), net of income taxes:							
Items that will be reclassified subsequently to net income							
Net change in unrealized foreign currency translation gains (losses)	**(3,520)**	(2,239)	(819)	(606)	(1,259)	396	1,855
Net change in unrealized gains (losses) on available-for-sale securities (debt and equity)(1)	**n/a**	n/a	n/a	n/a	(55)	(172)	(480)
Net change in fair value due to change in debt instruments measured at fair value through other comprehensive income(1)	**(600)**	293	105	(252)	n/a	n/a	n/a
Net change in gains (losses) on derivative instruments designated as cash flow hedges	**(806)**	(32)	708	(361)	(28)	258	55
Other comprehensive income (loss) from investments in associates	**37**	(2)	103	66	56	31	(9)
Items that will not be reclassified subsequently to net income							
Net change in remeasurement of employee benefit plan asset and liability	**1,335**	(465)	(815)	318	592	(716)	(1)
Net change in fair value due to change in equity instruments designated at fair value through other comprehensive income(1)	**408**	(85)	95	60	n/a	n/a	n/a
Net change in fair value due to change in own credit risk on financial liabilities designated under the fair value option(2)	**(199)**	(298)	8	(22)	(21)	(16)	15
Other comprehensive income (loss) from investments in associates	**5**	(8)	(10)	(7)	6	(10)	1
Other comprehensive income (loss)	**(3,340)**	(2,836)	(625)	(804)	(709)	(229)	1,436
Comprehensive income	**$ 6,615**	$ 4,017	$ 8,173	$ 7,920	$ 7,534	$ 7,139	$ 8,649
Comprehensive income (loss) attributable to:							
Common shareholders of the Bank	**$ 6,257**	$ 3,914	$ 7,786	$ 7,668	$ 7,213	$ 6,772	$ 8,408
Preferred shareholders and other equity instrument holders of the Bank	**233**	196	182	187	129	130	117
Non-controlling interests in subsidiaries	**125**	(93)	205	65	192	237	124
	$ 6,615	$ 4,017	$ 8,173	$ 7,920	$ 7,534	$ 7,139	$ 8,649

(1) The amounts for the years ended October 31, 2018 to October 31, 2021 have been prepared in accordance with IFRS 9; prior period amounts have not been restated.
(2) In accordance with the transition requirements for the own credit risk provisions of IFRS 9, prior year comparatives have not been restated for the adoption of this standard in 2015.

2014	2013	2012
$14,516	$13,139	$ 8,336
771	1,377	4,803
(56)	–	–
$15,231	$14,516	$13,139
25,315	21,978	18,421
(247)	(203)	(144)
25,068	21,775	18,277
6,916	6,162	5,974
(3,110)	(2,858)	(2,493)
(264)	–	–
(1)	(11)	17
$28,609	$25,068	$21,775
545	(31)	(497)
(157)	(714)	32
388	(745)	(465)
–	–	–
561	1,133	(280)
–	–	–
$ 949	$ 388	$ (745)
193	166	96
30	36	38
(47)	(9)	32
$ 176	$ 193	$ 166
$44,965	$40,165	$34,335
4,084	4,384	4,384
155	217	220
(155)	(217)	(220)
–	–	–
(1,150)	(300)	–
$ 2,934	$ 4,084	$ 4,384
1,155	1,743	1,500
(17)	(797)	(891)
1,138	946	609
227	231	196
(76)	(80)	(44)
23	41	185
$ 1,312	$ 1,138	$ 946
$49,211	$45,387	$39,665

2014	2013	2012
$7,298	$6,610	$6,390
889	346	149
(38)	110	151
n/a	n/a	n/a
(6)	93	116
60	20	25
(320)	563	(747)
n/a	n/a	n/a
n/a	n/a	n/a
(2)	–	–
583	1,132	(306)
$7,881	$7,742	$6,084
$7,477	$7,298	$5,694
155	217	220
249	227	170
$7,881	$7,742	$6,084

T87 Other statistics

For the year ended October 31	**2021**	2020	2019	2018	2017	2016	2015
Operating performance							
Basic earnings per share ($)	**7.74**	5.43	6.72	6.90	6.55	5.80	5.70
Diluted earnings per share ($)	**7.70**	5.30	6.68	6.82	6.49	5.77	5.67
Return on equity (%) (1)	**14.7**	10.4	13.1	14.5	14.6	13.8	14.6
Productivity ratio (%)(1)	**53.2**	53.8	53.9	52.3	53.9	55.2	54.2
Return on assets (%) (1)	**0.86**	0.59	0.83	0.92	0.90	0.81	0.84
Net interest margin (%)(2)	**2.23**	2.27	2.44	2.46	2.46	2.38	2.39
Capital measures(1)(3)							
Common Equity Tier 1 (CET1) capital ratio (%)	**12.3**	11.8	11.1	11.1	11.5	11.0	10.3
Tier 1 capital ratio (%)	**13.9**	13.3	12.2	12.5	13.1	12.4	11.5
Total capital ratio (%)	**15.9**	15.5	14.2	14.3	14.9	14.6	13.4
Leverage ratio (%)	**4.8**	4.7	4.2	4.5	4.7	4.5	4.2
Common share information							
Closing share price ($) (TSX)	**81.14**	55.35	75.54	70.65	83.28	72.08	61.49
Number of shares outstanding (millions)	**1,215**	1,211	1,216	1,227	1,199	1,208	1,203
Dividends paid per share ($)	**3.60**	3.60	3.49	3.28	3.05	2.88	2.72
Dividend yield (%)(1)(4)	**5.2**	5.8	4.9	4.2	4.0	4.7	4.4
Price to earnings multiple (trailing 4 quarters) (1)	**10.5**	10.2	11.2	10.2	12.7	12.4	10.8
Book value per common share ($) (1)	**53.28**	51.85	52.33	49.75	46.24	43.59	40.80
Other information							
Average total assets ($ millions)	**1,157,213**	1,160,584	1,056,063	945,683	912,619	913,844	860,607
Number of branches and offices	**2,518**	2,618	3,109	3,095	3,003	3,113	3,177
Number of employees	**89,488**	91,447(5)	101,380(5)	97,021(5)	87,761(5)	88,901	89,214
Number of automated banking machines	**8,610**	8,791	9,391	9,029	8,140	8,144	8,191

(1) Refer to Glossary on page 141 for the description of the measure.
(2) Refer to page 17 for a discussion of non-GAAP measures.
(3) Effective November 1, 2012, regulatory capital ratios are determined in accordance with Basel III rules. Comparative amounts for 2012 were determined in accordance with Basel II rules.
(4) Based on the average of the high and low common share price for the year.
(5) Amounts have been restated to conform with current period presentation.

2014	2013	2012
5.69	5.15	5.27
5.66	5.11	5.18
16.1	16.6	19.9
53.4	54.8	53.1
0.92	0.88	0.97
2.39	2.31	2.31
10.8	9.1	n/a
12.2	11.1	13.6
13.9	13.5	16.7
n/a	n/a	n/a
69.02	63.39	54.25
1,217	1,209	1,184
2.56	2.39	2.19
3.8	4.1	4.2
12.1	12.3	10.3
36.96	33.23	28.99
795,641	748,901	659,538
3,288	3,330	3,123
86,932	86,690	81,497
8,732	8,471	7,341

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MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL INFORMATION

The management of The Bank of Nova Scotia (the Bank) is responsible for the integrity and fair presentation of the financial information contained in this Annual Report. The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board. The consolidated financial statements also comply with the accounting requirements of the Bank Act.

The consolidated financial statements, where necessary, include amounts which are based on the best estimates and judgment of management. Financial information presented elsewhere in this Annual Report is consistent with that shown in the consolidated financial statements.

Management has always recognized the importance of the Bank maintaining and reinforcing the highest possible standards of conduct in all of its actions, including the preparation and dissemination of statements fairly presenting the financial condition of the Bank. In this regard, management has developed and maintains a system of accounting and reporting which provides for the necessary internal controls to ensure that transactions are properly authorized and recorded, assets are safeguarded against unauthorized use or disposition, and liabilities are recognized. The system is augmented by written policies and procedures, the careful selection and training of qualified staff, the establishment of organizational structures providing an appropriate and well-defined division of responsibilities, and the communication of policies and guidelines of Scotiabank's Code of Conduct throughout the Bank.

Management, under the supervision of and the participation of the President and Chief Executive Officer and the Group Head and Chief Financial Officer, have a process in place to evaluate disclosure controls and procedures and internal control over financial reporting in line with Canadian and U.S. securities regulations.

The system of internal controls is further supported by a professional staff of internal auditors who conduct periodic audits of all aspects of the Bank's operations. As well, the Bank's Chief Auditor has full and free access to, and meets periodically with the Audit and Conduct Review Committee of the Board of Directors. In addition, the Bank's compliance function maintains policies, procedures and programs directed at ensuring compliance with regulatory requirements, including conflict of interest rules.

The Office of the Superintendent of Financial Institutions Canada, which is mandated to protect the rights and interests of the depositors and creditors of the Bank, examines and enquires into the business and affairs of the Bank, as deemed necessary, to determine whether the provisions of the Bank Act are being complied with, and that the Bank is in a sound financial condition.

The Audit and Conduct Review Committee, composed entirely of outside directors, reviews the consolidated financial statements with both management and the independent auditors before such statements are approved by the Board of Directors and submitted to the shareholders of the Bank.

The Audit and Conduct Review Committee reviews and reports its findings to the Board of Directors on all related party transactions that may have a material impact on the Bank.

KPMG LLP, the independent auditors appointed by the shareholders of the Bank, have audited the consolidated financial position of the Bank as at October 31, 2021 and October 31, 2020 and its consolidated financial performance and its consolidated cash flows for each of the years in the three-year period ended October 31, 2021 prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board in accordance with Canadian Generally Accepted Auditing Standards and the standards of the Public Company Accounting Oversight Board (United States) and the effectiveness of internal control over financial reporting and have expressed their opinions upon completion of such audits in the reports to the shareholders. The Shareholders' Auditors have full and free access to, and meet periodically with, the Audit and Conduct Review Committee to discuss their audits, including any findings as to the integrity of the Bank's accounting, financial reporting and related matters.

Brian J. Porter
President and Chief Executive Officer

Raj Viswanathan
Group Head and Chief Financial Officer

Toronto, Canada
November 30, 2021

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of The Bank of Nova Scotia

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated statements of financial position of The Bank of Nova Scotia (the Bank) as at October 31, 2021 and 2020, the related consolidated statements of income, comprehensive income, changes in equity and cash flows for each of the years in the three-year period ended October 31, 2021, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Bank as at October 31, 2021 and 2020, and its financial performance and its cash flows for each of the years in the three-year period ended October 31, 2021, in conformity with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Bank's internal control over financial reporting as of October 31, 2021, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated November 30, 2021 expressed an unqualified opinion on the effectiveness of the Bank's internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Bank's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Bank in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the Audit and Conduct Review Committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

(i) Assessment of Allowance for Credit Losses on Financial Assets (ACL)

Refer to Notes 3 and 13 to the consolidated financial statements.

The Bank's ACL was $5,626 million as at October 31, 2021. The Bank applies a three-stage approach to measure the ACL, using an expected credit loss (ECL) approach as required under IFRS 9 Financial Instruments. The Bank's ACL calculations are outputs of complex models. The ACL calculation reflects a probability-weighted outcome that considers multiple scenarios based on the Bank's view of forecasts of future events and economic conditions. The probability of default (PD), loss given default (LGD) and exposure at default (EAD) inputs used to estimate ACL are modeled based on macroeconomic variables that are most closely related with credit losses in the relevant portfolio. The Bank assesses when there has been a significant increase in credit risk subsequent to origination or where the financial asset is in default. If there has been a significant increase in credit risk or the financial asset is in default, lifetime ACL is recorded; otherwise, ACL equal to 12 month expected credit losses is recorded. The estimation of ECL for each stage and the assessment of significant increases in credit risk consider information about past events and current conditions as well as forecasts of future events and economic conditions. The estimation and application of forward-looking information requires significant judgment. Qualitative adjustments or overlays may also be recorded by the Bank using expert credit judgment where the inputs and models do not capture all relevant risk factors.

We identified the assessment of the ACL as a critical audit matter. Significant auditor judgment was required because of the use of complex models and the high degree of measurement uncertainty due to the significant judgments inherent in the Bank's methodology such as judgments about forward-looking information, including the impact of the COVID-19 pandemic. These judgments impact certain inputs, assumptions, qualitative adjustments or overlays, and the determination of when there has been a significant increase in credit risk. The assessment of the ACL also required significant auditor attention and complex auditor judgment to apply and evaluate the results of audit procedures. This required specialized skills, industry knowledge, and relevant experience.

The following are the primary procedures we performed to address this critical audit matter. With the involvement of our credit risk and economics professionals with specialized skills, industry knowledge and relevant experience, we evaluated the design and tested the operating effectiveness of certain internal controls related to the Bank's ACL process. This included internal controls related to: (1) periodic validation and performance monitoring of models used to derive key modeled inputs into the ACL calculation being PD, LGD and EAD; (2) benchmarking of certain macroeconomic variables, model validation associated with the derivation of the remaining variables and review of the alternative scenarios and probability weights used in the ACL models; (3) the methodology to determine whether there has been a significant increase in credit risk; and (4) the methodology and assumptions used in the determination of qualitative adjustments or overlays. Additionally, for non-retail loans, we tested certain internal controls related to loan reviews over the determination of loan risk grades. We involved credit risk and economics professionals with specialized skills, industry knowledge and relevant experience who assisted in: (1) evaluating the methodology and models used to derive key modeled inputs into the ACL calculation being PD, LGD and EAD and the determination of whether there has been a significant increase in credit risk; (2) assessing the appropriateness of certain underlying macroeconomic variables against external economic data, evaluating the model used to derive other macroeconomic variables and evaluating the assumptions associated with the alternative economic scenarios and the related probabilities; and (3) assessing the qualitative adjustments or overlays by applying our knowledge of the industry and credit judgment

Consolidated Financial Statements

to evaluate the appropriateness of the Bank's underlying methodology and assumptions. Additionally, for a selection of non-retail loans, we evaluated the Bank's assigned credit risk ratings to loans against the Bank's borrower risk rating scale.

(ii) Assessment of the Measurement of Fair Value of Certain Financial Instruments

Refer to Notes 3 and 7 to the consolidated financial statements.

The Bank measures $246,411 million of financial assets and $105,825 million of financial liabilities as at October 31, 2021 at fair value on a recurring basis. Where financial instruments trade in inactive markets or when using internal models where observable parameters do not exist, significant management judgment is required for valuation purposes. The valuation techniques used in determining the fair value of financial instruments include internal models and net asset valuations. The significant unobservable inputs used in the Bank's valuation techniques include General Partner valuations per financial statements (NAVs), interest rate and equity volatility (volatility) and correlation.

We identified the assessment of the measurement of fair value for certain financial instruments as a critical audit matter. Significant auditor judgment was required due to the high degree of estimation uncertainty associated with the fair value of certain financial assets and financial liabilities. Significant and subjective auditor judgment was required to evaluate the results of audit procedures related to the valuation techniques, including significant unobservable inputs and the methodology used to develop the internal models.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Bank's processes to determine the fair value of certain financial instruments with the involvement of valuation and information technology professionals with specialized skills, industry knowledge and relevant experience. This included internal controls related to: (1) model validation at inception and periodically; (2) review of NAVs; (3) independent price verification, including assessment of rate sources; and (4) segregation of duties and access controls. With the involvement of valuation professionals with specialized skills, industry knowledge and relevant experience, we tested the fair value of a sample of certain financial instruments. Depending on the nature of the financial instruments, we did this by comparing the NAV to external information or by developing an independent estimate of fair value and comparing it to the fair value determined by the Bank.

(iii) Assessment of Uncertain Tax Provisions

Refer to Notes 3 and 27 to the consolidated financial statements.

The Bank maintains provisions for uncertain tax positions that it believes appropriately reflect the risk of tax positions under discussion, audit, dispute, or appeal with tax authorities, or which are otherwise considered to involve uncertainty. These provisions are made using the Bank's best estimate.

We identified the assessment of uncertain tax provisions as a critical audit matter because there is a high degree of subjectivity and complex auditor judgment required in assessing the Bank's interpretation of tax law and its best estimate of the ultimate resolution of tax positions. This required specialized skills, industry knowledge and relevant experience, to apply audit procedures and evaluate the results of those audit procedures.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Bank's income tax uncertainties process with the involvement of taxation professionals with specialized skills, industry knowledge and relevant experience. This included internal controls related to the (1) identification of tax uncertainties, including the interpretation of tax law and (2) determination of the best estimate of the provision required to settle these tax uncertainties. We involved tax professionals with specialized skills and knowledge, who assisted in (1) evaluating the Bank's interpretations of tax laws by developing an independent assessment based on our understanding and interpretation of tax laws and considering its impact on the measurement, if applicable, of the uncertain tax provisions; (2) reading and evaluating advice obtained by the Bank from external specialists, and considering its impact on the measurement, if applicable, of the uncertain tax provisions; and (3) inspecting correspondence and settlement documents with applicable taxation authorities, including assessment of the impact of the expiration of statutes of limitations.



Chartered Professional Accountants, Licensed Public Accountants

We have served as the Bank's auditor since 2006 and as joint auditor for 14 years prior to that.

Toronto, Canada
November 30, 2021

Consolidated Financial Statements

Consolidated Statement of Financial Position

As at October 31 ($ millions)	Note	2021	2020
Assets			
Cash and deposits with financial institutions	6	**$ 86,323**	$ 76,460
Precious metals		**755**	1,181
Trading assets			
Securities	8(a)	**137,148**	108,331
Loans	8(b)	**8,113**	8,352
Other		**1,051**	1,156
		146,312	117,839
Securities purchased under resale agreements and securities borrowed		**127,739**	119,747
Derivative financial instruments	10	**42,302**	45,065
Investment securities	12	**75,199**	111,389
Loans			
Residential mortgages	13	**319,678**	284,684
Personal loans	13	**91,540**	93,758
Credit cards	13	**12,450**	14,797
Business and government	13	**218,944**	217,663
		642,612	610,902
Allowance for credit losses	13(e)	**5,626**	7,639
		636,986	603,263
Other			
Customers' liability under acceptances, net of allowance		**20,404**	14,228
Property and equipment	16	**5,621**	5,897
Investments in associates	17	**2,604**	2,475
Goodwill and other intangible assets	18	**16,604**	17,015
Deferred tax assets	27(c)	**2,051**	2,185
Other assets	19	**21,944**	19,722
		69,228	61,522
		$ 1,184,844	$ 1,136,466
Liabilities			
Deposits			
Personal	20	**$ 243,551**	$ 246,135
Business and government	20	**511,348**	464,619
Financial institutions	20	**42,360**	40,084
		797,259	750,838
Financial instruments designated at fair value through profit or loss	9	**22,493**	18,899
Other			
Acceptances		**20,441**	14,305
Obligations related to securities sold short		**40,954**	31,902
Derivative financial instruments	10	**42,203**	42,247
Obligations related to securities sold under repurchase agreements and securities lent		**123,469**	137,763
Subordinated debentures	21	**6,334**	7,405
Other liabilities	22	**58,799**	62,604
		292,200	296,226
		1,111,952	1,065,963
Equity			
Common equity			
Common shares	24(a)	**18,507**	18,239
Retained earnings		**51,354**	46,345
Accumulated other comprehensive income (loss)		**(5,333)**	(2,125)
Other reserves		**222**	360
Total common equity		**64,750**	62,819
Preferred shares and other equity instruments	24(b)	**6,052**	5,308
Total equity attributable to equity holders of the Bank		**70,802**	68,127
Non-controlling interests in subsidiaries	31(b)	**2,090**	2,376
		72,892	70,503
		$ 1,184,844	$ 1,136,466

Aaron W. Regent
Chairman of the Board

Brian J. Porter
President and Chief Executive Officer

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

Consolidated Financial Statements

Consolidated Statement of Income

For the year ended October 31 ($ millions)	Note	2021	2020	2019
Revenue				
Interest income[1]	32			
Loans		**$ 23,159**	$ 26,977	$ 29,116
Securities		**1,467**	2,035	2,238
Securities purchased under resale agreements and securities borrowed		**178**	286	502
Deposits with financial institutions		**182**	414	928
		24,986	29,712	32,784
Interest expense	32			
Deposits		**6,465**	10,731	13,871
Subordinated debentures		**180**	240	294
Other[2]		**1,380**	1,421	1,442
		8,025	12,392	15,607
Net interest income		**16,961**	17,320	17,177
Non-interest income				
Card revenues		**749**	789	977
Banking services fees		**1,598**	1,540	1,812
Credit fees		**1,485**	1,348	1,316
Mutual funds		**2,394**	1,945	1,849
Brokerage fees		**1,039**	902	876
Investment management and trust		**994**	946	1,050
Underwriting and other advisory		**724**	690	497
Non-trading foreign exchange		**787**	708	667
Trading revenues	33	**2,033**	2,411	1,488
Net gain on sale of investment securities	12(e)	**419**	607	351
Net income from investments in associated corporations	17	**339**	242	650
Insurance underwriting income, net of claims		**398**	497	676
Other fees and commissions		**677**	688	949
Other		**655**	703	699
		14,291	14,016	13,857
Total revenue		**31,252**	31,336	31,034
Provision for credit losses	13(e)	**1,808**	6,084	3,027
		29,444	25,252	28,007
Non-interest expenses				
Salaries and employee benefits		**8,541**	8,624	8,443
Premises and technology[2]		**2,351**	2,408	2,807
Depreciation and amortization[2]		**1,511**	1,546	1,053
Communications		**369**	418	459
Advertising and business development		**404**	445	625
Professional		**789**	753	861
Business and capital taxes		**511**	517	515
Other		**2,142**	2,145	1,974
		16,618	16,856	16,737
Income before taxes		**12,826**	8,396	11,270
Income tax expense	27	**2,871**	1,543	2,472
Net income		**$ 9,955**	$ 6,853	$ 8,798
Net income attributable to non-controlling interests in subsidiaries	31(b)	**331**	75	408
Net income attributable to equity holders of the Bank		**$ 9,624**	$ 6,778	$ 8,390
Preferred shareholders and other equity instrument holders		**233**	196	182
Common shareholders		**$ 9,391**	$ 6,582	$ 8,208
Earnings per common share (in dollars)				
Basic	34	**$ 7.74**	$ 5.43	$ 6.72
Diluted	34	**7.70**	5.30	6.68
Dividends paid per common share (in dollars)	24(a)	**3.60**	3.60	3.49

(1) Includes interest income on financial assets measured at amortized cost and FVOCI, calculated using the effective interest method, of $24,547 for the year ended October 31, 2021 (October 31, 2020 – $29,173; October 31, 2019 – $32,436).
(2) The amounts for the years ended October 31, 2021 and October 31, 2020 have been prepared in accordance with IFRS 16; prior year amounts have not been restated.

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

Consolidated Financial Statements

Consolidated Statement of Comprehensive Income

For the year ended October 31 ($ millions)	2021	2020	2019
Net income	**$ 9,955**	$ 6,853	$ 8,798
Other comprehensive income (loss)			
Items that will be reclassified subsequently to net income			
Net change in unrealized foreign currency translation gains (losses):			
Net unrealized foreign currency translation gains (losses)	**(4,515)**	(2,433)	(626)
Net gains (losses) on hedges of net investments in foreign operations	**1,307**	347	(232)
Income tax expense (benefit):			
Net unrealized foreign currency translation gains (losses)	**(31)**	62	21
Net gains (losses) on hedges of net investments in foreign operations	**343**	91	(60)
	(3,520)	(2,239)	(819)
Net change in fair value due to change in debt instruments measured at fair value through other comprehensive income:			
Net gains (losses) in fair value	**(1,341)**	1,495	1,265
Reclassification of net (gains) losses to net income	**522**	(1,091)	(1,150)
Income tax expense (benefit):			
Net gains (losses) in fair value	**(346)**	387	308
Reclassification of net (gains) losses to net income	**127**	(276)	(298)
	(600)	293	105
Net change in gains (losses) on derivative instruments designated as cash flow hedges:			
Net gains (losses) on derivative instruments designated as cash flow hedges	**(1,267)**	2,543	361
Reclassification of net (gains) losses to net income	**176**	(2,604)	596
Income tax expense (benefit):			
Net gains (losses) on derivative instruments designated as cash flow hedges	**(471)**	689	86
Reclassification of net (gains) losses to net income	**186**	(718)	163
	(806)	(32)	708
Other comprehensive income (loss) from investments in associates	**37**	(2)	103
Items that will not be reclassified subsequently to net income			
Net change in remeasurement of employee benefit plan asset and liability:			
Actuarial gains (losses) on employee benefit plans	**1,815**	(620)	(1,096)
Income tax expense (benefit)	**480**	(155)	(281)
	1,335	(465)	(815)
Net change in fair value due to change in equity instruments designated at fair value through other comprehensive income:			
Net gains (losses) in fair value	**532**	(122)	121
Income tax expense (benefit)	**124**	(37)	26
	408	(85)	95
Net change in fair value due to change in own credit risk on financial liabilities designated under the fair value option:			
Change in fair value due to change in own credit risk on financial liabilities designated under the fair value option	**(270)**	(404)	11
Income tax expense (benefit)	**(71)**	(106)	3
	(199)	(298)	8
Other comprehensive income (loss) from investments in associates	**5**	(8)	(10)
Other comprehensive income (loss)	**(3,340)**	(2,836)	(625)
Comprehensive income	**$ 6,615**	$ 4,017	$ 8,173
Comprehensive income (loss) attributable to non-controlling interests	**125**	(93)	205
Comprehensive income attributable to equity holders of the Bank	**$ 6,490**	$ 4,110	$ 7,968
Preferred shareholders and other equity instrument holders	**233**	196	182
Common shareholders	**$ 6,257**	$ 3,914	$ 7,786

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

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Consolidated Statement of Changes in Equity

($ millions)	Common shares (Note 24)	Retained earnings(1)	Accumulated other comprehensive income (loss): Foreign currency translation	Debt instruments FVOCI	Equity instruments FVOCI	Cash flow hedges	Other(2)	Other reserves	Total common equity	Preferred shares and other equity instruments (Note 24)	Total attributable to equity holders	Non-controlling interests in subsidiaries (Note 31(b))	Total
Balance as at October 31, 2020	**$ 18,239**	**$ 46,345**	**$ (1,328)**	**$ 330**	**$ (163)**	**$ 639**	**$ (1,603)**	**$ 360**	**$ 62,819**	**$ 5,308**	**$ 68,127**	**$ 2,376**	**$ 70,503**
Net income	**–**	**9,391**	**–**	**–**	**–**	**–**	**–**	**–**	**9,391**	**233**	**9,624**	**331**	**9,955**
Other comprehensive income (loss)	**–**	**–**	**(3,322)**	**(600)**	**460**	**(844)**	**1,172**	**–**	**(3,134)**	**–**	**(3,134)**	**(206)**	**(3,340)**
Total comprehensive income	**$ –**	**$ 9,391**	**$ (3,322)**	**$ (600)**	**$ 460**	**$ (844)**	**$ 1,172**	**$ –**	**$ 6,257**	**$ 233**	**$ 6,490**	**$ 125**	**$ 6,615**
Shares/instruments issued	**268**	**–**	**–**	**–**	**–**	**–**	**–**	**(25)**	**243**	**2,003**	**2,246**	**–**	**2,246**
Shares repurchased/redeemed	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**(1,259)**	**(1,259)**	**–**	**(1,259)**
Dividends and distributions paid to equity holders	**–**	**(4,371)**	**–**	**–**	**–**	**–**	**–**	**–**	**(4,371)**	**(233)**	**(4,604)**	**(123)**	**(4,727)**
Share-based payments(3)	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**7**	**7**	**–**	**7**	**–**	**7**
Other	**–**	**(11)**	**(59)**	**–**	**(6)**	**(9)**	**–**	**(120)(4)**	**(205)**	**–**	**(205)**	**(288)(4)**	**(493)**
Balance as at October 31, 2021	**$ 18,507**	**$ 51,354**	**$ (4,709)**	**$ (270)**	**$ 291**	**$ (214)**	**$ (431)**	**$ 222**	**$ 64,750**	**$ 6,052**	**$ 70,802**	**$ 2,090**	**$ 72,892**
Balance as at October 31, 2019	$ 18,264	$ 44,439	$ 800	$ 37	$ (55)	$ 650	$ (862)	$ 365	$ 63,638	$ 3,884	$ 67,522	$ 2,670	$ 70,192
Net income	–	6,582	–	–	–	–	–	–	6,582	196	6,778	75	6,853
Other comprehensive income (loss)	–	–	(2,128)	293	(81)	(11)	(741)	–	(2,668)	–	(2,668)	(168)	(2,836)
Total comprehensive income	$ –	$ 6,582	$ (2,128)	$ 293	$ (81)	$ (11)	$ (741)	$ –	$ 3,914	$ 196	$ 4,110	$ (93)	$ 4,017
Shares/instruments issued	59	–	–	–	–	–	–	(9)	50	1,689	1,739	–	1,739
Shares repurchased/redeemed	(84)	(330)	–	–	–	–	–	–	(414)	(265)	(679)	–	(679)
Dividends and distributions paid to equity holders	–	(4,363)	–	–	–	–	–	–	(4,363)	(196)	(4,559)	(148)	(4,707)
Share-based payments(3)	–	–	–	–	–	–	–	5	5	–	5	–	5
Other	–	17	–	–	(27)	–	–	(1)	(11)	–	(11)	(53)(4)	(64)
Balance as at October 31, 2020	$ 18,239	$ 46,345	$ (1,328)	$ 330	$ (163)	$ 639	$ (1,603)	$ 360	$ 62,819	$ 5,308	$ 68,127	$ 2,376	$ 70,503
Balance as at October 31, 2018	$ 18,234	$ 41,414	$ 1,441	$ (68)	$ (126)	$ (121)	$ (134)	$ 404	$ 61,044	$ 4,184	$ 65,228	$ 2,452	$ 67,680
Cumulative effect of adopting IFRS 15	–	(58)	–	–	–	–	–	–	(58)	–	(58)	–	(58)
Balance as at November 1, 2018	18,234	41,356	1,441	(68)	(126)	(121)	(134)	404	60,986	4,184	65,170	2,452	67,622
Net income	–	8,208	–	–	–	–	–	–	8,208	182	8,390	408	8,798
Other comprehensive income (loss)	–	–	(641)	105	71	771	(728)	–	(422)	–	(422)	(203)	(625)
Total comprehensive income	$ –	$ 8,208	$ (641)	$ 105	$ 71	$ 771	$ (728)	$ –	$ 7,786	$ 182	$ 7,968	$ 205	$ 8,173
Shares issued	255	–	–	–	–	–	–	(37)	218	–	218	–	218
Shares repurchased/redeemed	(225)	(850)	–	–	–	–	–	–	(1,075)	(300)	(1,375)	–	(1,375)
Dividends and distributions paid to equity holders	–	(4,260)	–	–	–	–	–	–	(4,260)	(182)	(4,442)	(150)	(4,592)
Share-based payments(3)	–	–	–	–	–	–	–	7	7	–	7	–	7
Other	–	(15)	–	–	–	–	–	(9)	(24)	–	(24)	163(4)	139
Balance as at October 31, 2019	$ 18,264	$ 44,439	$ 800	$ 37	$ (55)	$ 650	$ (862)	$ 365	$ 63,638	$ 3,884	$ 67,522	$ 2,670	$ 70,192

(1) Includes undistributed retained earnings of $60 (2020 – $64; 2019 – $61) related to a foreign associated corporation, which is subject to local regulatory restriction.
(2) Includes Share from associates, Employee benefits and Own credit risk.
(3) Represents amounts on account of share-based payments (refer to Note 26).
(4) Includes changes to non-controlling interests arising from business combinations and related transactions (refer to Note 37).

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

Consolidated Financial Statements

Consolidated Statement of Cash Flows

Sources (uses) of cash flows for the year ended October 31 ($ millions)	2021(1)	2020(1)	2019
Cash flows from operating activities			
Net income	**$ 9,955**	$ 6,853	$ 8,798
Adjustment for:			
Net interest income	**(16,961)**	(17,320)	(17,177)
Depreciation and amortization	**1,511**	1,546	1,053
Provision for credit losses	**1,808**	6,084	3,027
Equity-settled share-based payment expense	**7**	5	7
Net gain on sale of investment securities	**(419)**	(607)	(351)
Net (gain)/loss on divestitures	**9**	(307)	125
Net income from investments in associated corporations	**(339)**	(242)	(650)
Income tax expense	**2,871**	1,543	2,472
Changes in operating assets and liabilities:			
Trading assets	**(33,995)**	9,945	(27,514)
Securities purchased under resale agreements and securities borrowed	**(14,202)**	12,781	(27,235)
Loans	**(55,748)**	(25,486)	(44,337)
Deposits	**78,569**	27,982	60,705
Obligations related to securities sold short	**10,078**	1,195	(1,694)
Obligations related to securities sold under repurchase agreements and securities lent	**(7,709)**	11,722	22,727
Net derivative financial instruments	**2,123**	(1,949)	1,964
Other, net	**(5,300)**	7,527	(8,881)
Dividends received	**969**	824	520
Interest received	**25,425**	29,572	32,696
Interest paid	**(8,766)**	(13,042)	(15,322)
Income tax paid	**(2,693)**	(1,962)	(2,958)
Net cash from/(used in) operating activities	**(12,807)**	56,664	(12,025)
Cash flows from investing activities			
Interest-bearing deposits with financial institutions	**(15,006)**	(30,346)	18,014
Purchase of investment securities	**(72,259)**	(147,629)	(89,018)
Proceeds from sale and maturity of investment securities	**103,765**	119,033	86,956
Acquisition/divestiture of subsidiaries, associated corporations or business units, net of cash	**(717)**	3,938	20
Property and equipment, net of disposals	**(462)**	(771)	(186)
Other, net	**(624)**	(684)	(568)
Net cash from/(used in) investing activities	**14,697**	(56,459)	15,218
Cash flows from financing activities			
Proceeds from issue of subordinated debentures	**–**	–	3,250
Redemption/repurchase of subordinated debentures	**(750)**	(9)	(1,771)
Proceeds from preferred shares and other equity instruments issued	**2,003**	1,689	–
Redemption of preferred shares	**(1,259)**	(265)	(300)
Proceeds from common shares issued	**268**	59	255
Common shares purchased for cancellation	**–**	(414)	(1,075)
Cash dividends and distributions paid	**(4,604)**	(4,559)	(4,442)
Distributions to non-controlling interests	**(123)**	(148)	(150)
Payment of lease liabilities	**(344)**	(345)	–
Other, net	**2,032**	4,135	2,945
Net cash from/(used in) financing activities	**(2,777)**	143	(1,288)
Effect of exchange rate changes on cash and cash equivalents	**(543)**	(129)	2
Net change in cash and cash equivalents	**(1,430)**	219	1,907
Cash and cash equivalents at beginning of year(2)	**11,123**	10,904	8,997
Cash and cash equivalents at end of year(2)	**$ 9,693**	$ 11,123	$ 10,904

(1) The amounts for the years ended October 31, 2021 and October 31, 2020 have been prepared in accordance with IFRS 16; prior year amounts have not been restated.
(2) Represents cash and non-interest bearing deposits with financial institutions (refer to Note 6).

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

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Consolidated Financial Statements

1 Reporting Entity

The Bank of Nova Scotia (the Bank) is a chartered Schedule I bank under the Bank Act (Canada) (the Bank Act) and is regulated by the Office of the Superintendent of Financial Institutions (OSFI). The Bank is a global financial services provider offering a diverse range of products and services, including personal, commercial, corporate and investment banking. The head office of the Bank is located at 1709 Hollis Street, Halifax, Nova Scotia, Canada and its executive offices are at Scotia Plaza, 44 King Street West, Toronto, Ontario, Canada. The common shares of the Bank are listed on the Toronto Stock Exchange (TSX) and the New York Stock Exchange.

2 Basis of Preparation

Statement of compliance

These consolidated financial statements were prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) and accounting requirements of OSFI in accordance with Section 308 of the Bank Act. Section 308 states that, except as otherwise specified by OSFI, the financial statements are to be prepared in accordance with IFRS.

The consolidated financial statements for the year ended October 31, 2021 have been approved by the Board of Directors for issue on November 30, 2021.

Certain comparative amounts have been restated to conform with the basis of presentation in the current year.

Basis of measurement

The consolidated financial statements have been prepared on the historical cost basis except for the following material items that are measured at fair value in the Consolidated Statement of Financial Position:

- Financial assets and liabilities measured at fair value through profit or loss
- Financial assets and liabilities designated at fair value through profit or loss
- Derivative financial instruments
- Equity instruments designated at fair value through other comprehensive income
- Debt instruments measured at fair value through other comprehensive income

Functional and presentation currency

These consolidated financial statements are presented in Canadian dollars, which is the Bank's functional currency. All financial information presented in Canadian dollars has been rounded to the nearest million unless otherwise stated.

Management's use of estimates, assumptions and judgments

The Bank's accounting policies require estimates, assumptions and judgments that relate to matters that are inherently uncertain. The Bank has established procedures to ensure that accounting policies are applied consistently. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the year in which the estimates are revised.

Use of estimates and assumptions

The preparation of these consolidated financial statements, in conformity with IFRS, requires management to make estimates and assumptions that affect the reported amount of assets and liabilities at the date of the consolidated financial statements, and other comprehensive income and income and expenses during the reporting period. Estimates made by management are based on historical experience and other assumptions that are believed to be reasonable. Key areas of estimation uncertainty include those relating to the allowance for credit losses, the fair value of financial instruments (including derivatives), corporate income taxes, employee benefits, goodwill and intangible assets, the fair value of all identifiable assets and liabilities as a result of business combinations, impairment of non-financial assets, derecognition of financial assets and liabilities and provisions. The COVID-19 virus continues to have ongoing fading impacts on the markets in which the Bank operates. Sectors in several countries most heavily impacted by COVID-19 since its outset continue to operate below pre-pandemic levels giving rise to elevated uncertainties. The Bank has utilized estimates, assumptions and judgments that reflect this uncertainty. While management makes its best estimates and assumptions, actual results could differ from these and other estimates.

Significant judgments

In the preparation of these consolidated financial statements, management is required to make significant judgments in the classification and presentation of transactions and instruments and accounting for involvement with other entities.

Consolidated Financial Statements

Significant estimates, assumptions and judgments have been made in the following areas and are discussed as noted in the consolidated financial statements:

Allowance for credit losses	Note 3 Note 13(d)
Fair value of financial instruments	Note 3 Note 7
Corporate income taxes	Note 3 Note 27
Employee benefits	Note 3 Note 28
Goodwill and intangible assets	Note 3 Note 18
Fair value of all identifiable assets and liabilities as a result of business combinations	Note 3 Note 37
Impairment of investment securities	Note 3 Note 12
Impairment of non-financial assets	Note 3 Note 16
Structured entities	Note 3 Note 15
De facto control of other entities	Note 3 Note 31
Derecognition of financial assets and liabilities	Note 3 Note 14
Provisions	Note 3 Note 23

3 Significant Accounting Policies

The significant accounting policies used in the preparation of these consolidated financial statements, including any additional accounting requirements of OSFI, as set out below, have been applied consistently to all periods presented in these consolidated financial statements, with the exception of the adoption of IFRS 16, effective November 1, 2019.

Basis of consolidation

The consolidated financial statements include the assets, liabilities, financial performance and cash flows of the Bank and all of its subsidiaries, after elimination of intercompany transactions and balances. Subsidiaries are defined as entities controlled by the Bank and exclude associates and joint arrangements. The Bank's subsidiaries can be classified as entities controlled through voting interests or structured entities. The Bank consolidates a subsidiary from the date it obtains control. The Bank controls an investee when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. For the Bank to control an entity, all of the three elements of control should be in existence:

- power over the investee;
- exposure, or rights, to variable returns from involvement with the investee; and
- the ability to use power over the investee to affect the amount of the Bank's returns.

The Bank does not control an investee when it is acting as an agent. The Bank assesses whether it is an agent by determining whether it is primarily engaged to act on behalf of and for the benefit of another party or parties. The Bank reassesses whether it controls an investee if facts and circumstances indicate that one or more of the elements of control has changed.

Voting-interest subsidiaries

Control is presumed with an ownership interest of more than 50% of the voting rights in an entity unless there are other factors that indicate that the Bank does not control the entity despite having more than 50% of voting rights.

The Bank may consolidate an entity when it owns less than 50% of the voting rights when it has one or more other attributes of power:

- by virtue of an agreement, over more than half of the voting rights;
- to govern the financial and operating policies of the entity under a statute or an agreement;
- to appoint or remove the majority of the members of the board of directors or equivalent governing body and control of the entity is by that board or body; or
- to govern the financial and operating policies of the entity through the size of its holding of voting rights relative to the size and dispersion of holding of the other vote holders and voting patterns at shareholder meetings (i.e., de facto control).

Non-controlling interests are presented within equity in the Consolidated Statement of Financial Position separate from equity attributable to equity holders of the Bank. Partial sales and incremental purchases of interests in subsidiaries that do not result in a change of control are accounted for as equity transactions with non-controlling interest holders. Any difference between the carrying amount of the interest and the transaction amount is recorded as an adjustment to retained earnings.

Structured entities

Structured entities are designed to accomplish certain well-defined objectives and for which voting or similar rights are not the dominant factor in deciding who controls the entity. The Bank may become involved with structured entities either at the formation stage or at a later date. The Bank controls an investee when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee.

Consolidated Financial Statements

The Bank consolidates all structured entities that it controls.

Investments in associates
An associate is an entity in which the Bank has significant influence, but not control, over the operating and financial policies of the entity.

Investments in associates are recognized initially at cost, which includes the purchase price and other costs directly attributable to the purchase. Associates are accounted for using the equity method which reflects the Bank's share of the increase or decrease of the post-acquisition earnings and other movements in the associate's equity.

Investments in associates are evaluated for impairment at the end of each financial reporting period, or more frequently if events or changes in circumstances indicate the existence of objective evidence of impairment.

For purposes of applying the equity method for an investment that has a different reporting period from the Bank, adjustments are made for the effects of any significant events or transactions that occur between the reporting date of the investment and the reporting date of the Bank.

Joint arrangements
The Bank's investments in joint arrangements over which the Bank has joint control are classified as either joint operations or joint ventures depending on the contractual rights and obligations of each investor, rather than the legal structure of the joint arrangement.

Similar to accounting for investment in associates, for joint ventures, investments are recognized initially at cost and accounted for using the equity method which reflects the Bank's share of the increase or decrease of the post-acquisition earnings and other movements in the joint venture's equity. Investments in joint ventures are evaluated for impairment at the end of each financial reporting period, or more frequently if events or changes in circumstances indicate the existence of objective evidence of impairment.

For joint operations, the Bank recognizes its direct rights to, and its share of jointly held assets, liabilities, revenues and expenses of joint operations. These have been incorporated in the consolidated financial statements under the appropriate headings.

Translation of foreign currencies

The financial statements of each of the Bank's foreign operations are measured using its functional currency, being the currency of the primary economic environment of the foreign operation.

Translation gains and losses related to the Bank's monetary items are recognized in non-interest income in the Consolidated Statement of Income. Revenues and expenses denominated in foreign currencies are translated using average exchange rates. Foreign currency non-monetary items that are measured at historical cost are translated into the functional currency at historical rates. Foreign currency non-monetary items measured at fair value are translated into functional currency using the rate of exchange at the date the fair value was determined. Foreign currency gains and losses on non-monetary items are recognized in the Consolidated Statement of Income or Consolidated Statement of Comprehensive Income consistent with the gain or loss on the non-monetary item.

Unrealized gains and losses arising upon translation of foreign operations, together with any gains or losses arising from hedges of those net investment positions to the extent effective, are credited or charged to net change in unrealized foreign currency translation gains/losses in other comprehensive income in the Consolidated Statement of Comprehensive Income. On disposal or meeting the definition of partial disposal of a foreign operation, an appropriate portion of the translation differences previously recognized in other comprehensive income are recognized in the Consolidated Statement of Income.

Financial assets and liabilities

Recognition and initial measurement
The Bank, on the date of origination or purchase, recognizes loans, debt and equity securities, deposits and subordinated debentures at the fair value of consideration paid. Regular-way purchases and sales of financial assets are recognized on the settlement date. All other financial assets and liabilities, including derivatives, are initially recognized on the trade date at which the Bank becomes a party to the contractual provisions of the instrument.

The initial measurement of a financial asset or liability is at fair value plus transaction costs that are directly attributable to its purchase or issuance. For instruments measured at fair value through profit or loss, transaction costs are recognized immediately in profit or loss.

Classification and measurement, derecognition, and impairment of financial instruments

Classification and measurement

Classification and measurement of financial assets
Financial assets include both debt and equity instruments, and are classified into one of the following measurement categories:

- Amortized cost;
- Fair value through other comprehensive income (FVOCI);
- Fair value through profit or loss (FVTPL);
- Elected at fair value through other comprehensive income (Equities only); or
- Designated at FVTPL

Debt instruments
Debt instruments, including loans and debt securities, are classified into one of the following measurement categories:

- Amortized cost;
- Fair value through other comprehensive income (FVOCI);
- Fair value through profit or loss (FVTPL); or
- Designated at FVTPL

Classification of debt instruments is determined based on:

(i) The business model under which the asset is held; and
(ii) The contractual cash flow characteristics of the instrument.

Consolidated Financial Statements

Business model assessment
Business model assessment involves determining how financial assets are managed in order to generate cash flows. The Bank's business model assessment is based on the following categories:

- Held to collect: The objective of the business model is to hold assets and collect contractual cash flows. Any sales of the asset are incidental to the objective of the model.
- Held to collect and for sale: Both collecting contractual cash flows and sales are integral to achieving the objectives of the business model.
- Other business model: The business model is neither held-to-collect nor held-to-collect and for sale.

The Bank assesses business model at a portfolio level reflective of how groups of assets are managed together to achieve a particular business objective. For the assessment of a business model, the Bank takes into consideration the following factors:

- How the performance of assets in a portfolio is evaluated and reported to group heads and other key decision makers within the Bank's business lines;
- How compensation is determined for the Bank's business lines' management that manages the assets;
- How the business lines' management is compensated for managing the Bank's assets based on the fair value or the contractual cash flows collected;
- Whether the assets are held for trading purposes;
- The risks that affect the performance of assets held within a business model and how those risks are managed; and
- The frequency and volume of sales in prior periods and expectations about future sales activity.

Contractual cash flow characteristics assessment
The contractual cash flow characteristics assessment involves assessing the contractual features of an instrument to determine if they give rise to cash flows that are consistent with a basic lending arrangement. Contractual cash flows are consistent with a basic lending arrangement if they represent cash flows that are solely payments of principal and interest on the principal amount outstanding (SPPI).

Principal is defined as the fair value of the instrument at initial recognition. Principal may change over the life of the instrument due to repayments or amortization of premium/discount.

Interest is defined as the consideration for the time value of money and the credit risk associated with the principal amount outstanding and for other basic lending risks and costs (liquidity risk and administrative costs), and a profit margin.

If the Bank identifies any contractual features that could significantly modify the cash flows of the instrument such that they are no longer consistent with a basic lending arrangement, the related financial asset is classified and measured at FVTPL.

Debt instruments measured at amortized cost
Debt instruments are measured at amortized cost if they are held within a business model whose objective is to hold for collection of contractual cash flows where those cash flows represent solely payments of principal and interest. After initial measurement, debt instruments in this category are carried at amortized cost. Interest income on these instruments is recognized in interest income using the effective interest rate method. The effective interest rate is the rate that discounts estimated future cash payments or receipts through the expected life of the financial asset to the gross carrying amount of a financial asset. Amortized cost is calculated by taking into account any discount or premium on acquisition, transaction costs and fees that are an integral part of the effective interest rate.

Impairment on debt instruments measured at amortized cost is calculated using the expected credit loss approach. Loans and debt securities measured at amortized cost are presented net of the allowance for credit losses (ACL) in the Statement of Financial Position.

Debt instruments measured at FVOCI
Debt instruments are measured at FVOCI if they are held within a business model whose objective is to hold for collection of contractual cash flows and for selling financial assets, where the assets' cash flows represent payments that are solely payments of principal and interest. Subsequent to initial recognition, unrealized gains and losses on debt instruments measured at FVOCI are recorded in other comprehensive income (OCI), unless the instrument is designated in a fair value hedge relationship. When designated in a fair value hedge relationship, any changes in fair value due to changes in the hedged risk are recognized in Non-interest income in the Consolidated Statement of Income, along with changes in fair value of the hedging instrument. Upon derecognition, realized gains and losses are reclassified from OCI and recorded in Non-interest income in the Consolidated Statement of Income. Foreign exchange gains and losses that relate to the amortized cost of the debt instrument are recognized in the Consolidated Statement of Income. Premiums, discounts and related transaction costs are amortized over the expected life of the instrument to Interest income in the Consolidated Statement of Income using the effective interest rate method.

Impairment on debt instruments measured at FVOCI is determined using the expected credit loss approach. The ACL on debt instruments measured at FVOCI does not reduce the carrying amount of the asset in the Consolidated Statement of Financial Position, which remains at its fair value. Instead, an amount equal to the allowance that would arise if the assets were measured at amortised cost is recognised in OCI with a corresponding charge to Provision for credit losses in the Consolidated Statement of Income. The accumulated allowance recognised in OCI is recycled to the Consolidated Statement of Income upon derecognition of the debt instrument.

Debt instruments measured at FVTPL
Debt instruments are measured at FVTPL if assets:

(i) are held for trading purposes;
(ii) are held as part of a portfolio managed on a fair value basis; or
(iii) whose cash flows do not represent payments that are solely payments of principal and interest.

These instruments are measured at fair value in the Consolidated Statement of Financial Position, with transaction costs recognized immediately in the Consolidated Statement of Income as part of Non-interest income. Realized and unrealized gains and losses are recognized as part of Non-interest income in the Consolidated Statement of Income.

Debt instruments designated at FVTPL
Financial assets classified in this category are those that have been designated by the Bank upon initial recognition, and once designated, the designation is irrevocable. The FVTPL designation is available only for those financial assets for which a reliable estimate of fair value can be

obtained. Financial assets are designated at FVTPL if doing so eliminates or significantly reduces an accounting mismatch which would otherwise arise.

Financial assets designated at FVTPL are recorded in the Consolidated Statement of Financial Position at fair value. Changes in fair value are recognized in Non-interest income in the Consolidated Statement of Income.

Equity instruments
Equity instruments are classified into one of the following measurement categories:

- Fair value through profit or loss (FVTPL); or
- Elected at fair value through other comprehensive income (FVOCI).

Equity instruments measured at FVTPL
Equity instruments are measured at FVTPL, unless an election is made to designate them at FVOCI upon purchase, with transaction costs recognized immediately in the Consolidated Statement of Income as part of Non-interest income. Subsequent to initial recognition, the changes in fair value and dividends received are recognized as part of Non-interest income in the Consolidated Statement of Income.

Equity instruments measured at FVOCI
At initial recognition, there is an irrevocable option for the Bank to classify non-trading equity instruments at FVOCI. This election is used for certain equity investments for strategic or longer-term investment purposes. This election is made on an instrument-by-instrument basis and is not available to equity instruments that are held for trading purposes.

Gains and losses on these instruments, including when derecognized/sold, are recorded in OCI and are not subsequently reclassified to the Consolidated Statement of Income. As such, there is no specific impairment requirement. Dividends received are recorded in Interest income in the Consolidated Statement of Income. Any transaction costs incurred upon purchase of the security are added to the cost basis of the security and are not reclassified to the Consolidated Statement of Income on sale of the security.

Classification and measurement of financial liabilities
Financial liabilities are classified into one of the following measurement categories:

- Fair value through profit or loss (FVTPL);
- Amortized cost; or
- Designated at FVTPL.

Financial liabilities measured at FVTPL
Financial liabilities measured at FVTPL are held principally for the purpose of repurchasing in the near term, or form part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short term profit-taking. Financial liabilities are recognized on a trade date basis and are accounted for at fair value, with changes in fair value and any gains or losses recognized in the Consolidated Statement of Income as part of the non-interest income. Transaction costs are expensed as incurred.

Financial liabilities measured at amortized cost
Deposits, subordinated notes and debentures are accounted for at amortized cost. Interest on deposits, calculated using the effective interest rate method, is recognized as interest expense. Interest on subordinated notes and debentures, including capitalized transaction costs, is recognized using the effective interest rate method as interest expense.

Financial liabilities designated at FVTPL
Financial liabilities classified in this category are those that have been designated by the Bank upon initial recognition, and once designated, the designation is irrevocable. The FVTPL designation is available only for those financial liabilities for which a reliable estimate of fair value can be obtained.

Financial liabilities are designated at FVTPL when one of the following criteria is met:

- The designation eliminates or significantly reduces an accounting mismatch which would otherwise arise; or
- A group of financial liabilities are managed and their performance is evaluated on a fair value basis, in accordance with a documented risk management strategy; or
- The financial liability contains one or more embedded derivatives which significantly modify the cash flows otherwise required.

Financial liabilities designated at FVTPL are recorded in the Consolidated Statement of Financial Position at fair value. Any changes in fair value are recognized in Non-interest income in the Consolidated Statement of Income, except for changes in fair value arising from changes in the Bank's own credit risk which are recognized in OCI. Changes in fair value due to changes in the Bank's own credit risk are not subsequently reclassified to the Consolidated Statement of Income upon derecognition/extinguishment of the liabilities.

Determination of fair value
Fair value of a financial asset or liability is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants in the principal, or in its absence, the most advantageous market to which the Bank has access at the measurement date.

The Bank values instruments carried at fair value using quoted market prices, where available. Fair value based on unadjusted quoted market prices for identical instruments in active markets represents a Level 1 valuation. When quoted market prices are not available, the Bank maximizes the use of observable inputs within valuation models. When a fair value is based on all significant market observable inputs, the valuation is classified as Level 2. Valuations that require the significant use of unobservable inputs are considered Level 3.

Inception gains and losses are only recognized where the valuation is dependent on observable market data; otherwise, they are deferred and amortized over the life of the related contract or until the valuation inputs become observable.

IFRS 13, *Fair Value Measurement* permits a measurement exception that allows an entity to determine the fair value of a group of financial assets and liabilities with offsetting risks based on the sale or transfer of its net exposure to a particular risk (or risks). The Bank has adopted this

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exception through an accounting policy choice. Consequently, the fair values of certain portfolios of financial instruments are determined based on the net exposure of those instruments to particular market, credit or funding risk.

In determining fair value for certain instruments or portfolios of instruments, valuation adjustments or reserves may be required to arrive at a more accurate representation of fair value. These adjustments include those made for credit risk, bid-offer spreads, unobservable parameters, constraints on prices in inactive or illiquid markets and when applicable funding costs.

Derecognition of financial assets and liabilities

Derecognition of financial assets

A financial asset is derecognized when the contractual rights to the cash flows from the asset has expired; or the Bank transfers the contractual rights to receive the cash flows from the financial asset; or has assumed an obligation to pay those cash flows to an independent third-party; or the Bank has transferred substantially all the risks and rewards of ownership of that asset to an independent third-party. Management determines whether substantially all the risk and rewards of ownership have been transferred by quantitatively comparing the variability in cash flows before and after the transfer. If the variability in cash flows remains significantly similar subsequent to the transfer, the Bank has retained substantially all of the risks and rewards of ownership.

Where substantially all the risks and rewards of ownership of the financial asset are neither retained nor transferred, the Bank derecognizes the transferred asset only if it has lost control over that asset. Control over the asset is represented by the practical ability to sell the transferred asset. If the Bank retains control over the asset, it will continue to recognize the asset to the extent of its continuing involvement. At times such continuing involvement may be in the form of investment in senior or subordinated tranches of notes issued by non-consolidated structured entities.

On derecognition of a financial asset, the difference between the carrying amount and the sum of (i) the consideration received (including any new asset obtained less any new liability assumed) and (ii) any cumulative gain or loss that had been recognized in other comprehensive income is recognized in the Consolidated Statement of Income.

Transfers of financial assets that do not qualify for derecognition are reported as secured financings in the Consolidated Statement of Financial Position.

The derecognition criteria are applied to the transfer of part of an asset, rather than the asset as a whole, only if such part comprises specifically identified cash flows from the asset, a fully proportionate share of the cash flows from the asset, or a fully proportionate share of specifically identified cash flows from the asset.

Derecognition of financial liabilities

A financial liability is derecognized when the obligation under the liability is discharged, canceled or expires. If an existing financial liability is replaced by another from the same counterparty on substantially different terms, or the terms of the existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability at fair value. The difference in the respective carrying amount of the existing liability and the new liability is recognized as a gain/loss in the Consolidated Statement of Income.

Impairment

Scope

The Bank applies a three-stage approach to measure allowance for credit losses, using an expected credit loss approach as required under IFRS 9, for the following categories of financial instruments that are not measured at fair value through profit or loss:

- Amortized cost financial assets;
- Debt securities classified as at FVOCI;
- Off-balance sheet loan commitments; and
- Financial guarantee contracts.

Expected credit loss impairment model

The Bank's allowance for credit losses calculations are outputs of models with a number of underlying assumptions regarding the choice of variable inputs and their interdependencies. The expected credit loss impairment model reflects the present value of all cash shortfalls related to default events either (i) over the following twelve months or (ii) over the expected life of a financial instrument depending on credit deterioration from inception. The allowance for credit losses reflects an unbiased, probability-weighted outcome which considers multiple scenarios based on reasonable and supportable forecasts.

This impairment model measures credit loss allowances using a three-stage approach based on the extent of credit deterioration since origination:

- Stage 1 – Where there has not been a significant increase in credit risk (SIR) since initial recognition of a financial instrument, an amount equal to 12 months expected credit loss is recorded. The expected credit loss is computed using a probability of default occurring over the next 12 months. For those instruments with a remaining maturity of less than 12 months, a probability of default corresponding to remaining term to maturity is used.
- Stage 2 – When a financial instrument experiences a SIR subsequent to origination but is not considered to be in default, it is included in Stage 2. This requires the computation of expected credit loss based on the probability of default over the remaining estimated life of the financial instrument.
- Stage 3 – Financial instruments that are considered to be in default are included in this stage. Similar to Stage 2, the allowance for credit losses captures the lifetime expected credit losses.

Measurement of expected credit loss

The probability of default (PD), exposure at default (EAD), and loss given default (LGD) inputs used to estimate expected credit losses are modelled based on macroeconomic variables that are most closely related with credit losses in the relevant portfolio.

Details of these statistical parameters/inputs are as follows:

- PD – The probability of default is an estimate of the likelihood of default over a given time horizon. A default may only happen at a certain time over the remaining estimated life, if the facility has not been previously derecognized and is still in the portfolio.

- EAD – The exposure at default is an estimate of the exposure at a future default date, taking into account expected changes in the exposure after the reporting date, including repayments of principal and interest, whether scheduled by contract or otherwise, expected drawdowns on committed facilities, and accrued interest from missed payments.
- LGD – The loss given default is an estimate of the loss arising in the case where a default occurs at a given time. It is based on the difference between the contractual cash flows due and those that the lender would expect to receive, including from the realization of any collateral. It is usually expressed as a percentage of the EAD.

Forward-looking information
The estimation of expected credit losses for each stage and the assessment of significant increases in credit risk consider information about past events and current conditions as well as reasonable and supportable forecasts of future events and economic conditions. The estimation and application of forward-looking information may require significant judgment.

Macroeconomic factors
In its models, the Bank relies on a broad range of forward-looking economic information as inputs, such as: GDP growth, unemployment rates, central bank interest rates, and house-price indices. The inputs and models used for calculating expected credit losses may not always capture all characteristics of the market at the date of the financial statements. Qualitative adjustments or overlays may be made as temporary adjustments using expert credit judgment.

Multiple forward-looking scenarios
The Bank determines its allowance for credit losses using four probability-weighted forward-looking scenarios. The Bank considers both internal and external sources of information and data in order to achieve an unbiased projections and forecasts. The Bank prepares the scenarios using forecasts generated by Scotiabank Economics (SE). The forecasts are created using internal and external models which are modified by SE as necessary to formulate a 'base case' view of the most probable future direction of relevant economic variables as well as a representative range of other possible forecast scenarios. The process involves the development of three additional economic scenarios and consideration of the relative probabilities of each outcome.

The 'base case' represents the most likely outcome and is aligned with information used by the Bank for other purposes such as strategic planning and budgeting. The other scenarios represent more optimistic and more pessimistic outcomes. The Bank has identified and documented key drivers of credit risk and credit losses for each portfolio of financial instruments and, using an analysis of historical data, has estimated relationships between macroeconomic variables, credit risk, and credit losses.

Assessment of significant increase in credit risk (SIR)
At each reporting date, the Bank assesses whether there has been a significant increase in credit risk for exposures since initial recognition by comparing the risk of default occurring over the remaining expected life from the reporting date and the date of initial recognition. The assessment considers borrower-specific quantitative and qualitative information without consideration of collateral, and the impact of forward-looking macroeconomic factors.

The common assessments for SIR on retail and non-retail portfolios include macroeconomic outlook, management judgement, and delinquency and monitoring. Forward-looking macroeconomic factors are a key component of the macroeconomic outlook. The importance and relevance of each specific macroeconomic factor depends on the type of product, characteristics of the financial instruments and the borrower and the geographical region. Quantitative models may not always be able to capture all reasonable and supportable information that may indicate a significant increase in credit risk. Qualitative factors may be assessed to supplement the gap. Examples of situations include changes in adjudication criteria for a particular group of borrowers; changes in portfolio composition; and natural disasters impacting certain portfolios. With regards to delinquency and monitoring, there is a rebuttable presumption that the credit risk of the financial instrument has increased since initial recognition when contractual payments are more than 30 days overdue.

Retail portfolio – For retail exposures, a significant increase in credit risk cannot be assessed using forward looking information at an individual account level. Therefore, the assessment must be done at the segment level. Segment migration thresholds exist for each PD model by product which considers the proportionate change in PD as well as the absolute change in PD. The thresholds used for PD migration are reviewed and assessed at least annually, unless there is a significant change in credit risk management practices in which case the review is brought forward.

Non-retail portfolio – The Bank uses a risk rating scale (IG codes) for its non-retail exposures. All non-retail exposures have an IG code assigned that reflects the probability of default of the borrower. Both borrower specific and non-borrower specific (i.e. macroeconomic) forward looking information is considered and reflected in the IG rating. Significant increase in credit risk is evaluated based on the migration of the exposures among IG codes.

Expected life
When measuring expected credit loss, the Bank considers the maximum contractual period over which the Bank is exposed to credit risk. All contractual terms are considered when determining the expected life, including prepayment, and extension and rollover options. For certain revolving credit facilities, such as credit cards, the expected life is estimated based on the period over which the Bank is exposed to credit risk and how the credit losses are mitigated by management actions.

Presentation of allowance for credit losses in the Statement of Financial Position

- Financial assets measured at amortized cost: as a deduction from the gross carrying amount of the financial assets;
- Debt instruments measured at fair value through other comprehensive income: no allowance is recognized in the Statement of Financial Position because the carrying value of these assets is their fair value. However, the allowance determined is presented in the accumulated other comprehensive income;
- Off-balance sheet credit risks include undrawn lending commitments, letters of credit and letters of guarantee: as a provision in other liabilities.

Modified financial assets
If the terms of a financial asset are modified or an existing financial asset is replaced with a new one, an assessment is made to determine if the existing financial asset should be derecognized. Where a modification does not result in derecognition, the date of origination continues to be used to determine SIR. Where a modification results in derecognition, the new financial asset is recognized at its fair value on the modification date. The modification date is also the date of origination for this new asset.

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The Bank may modify the contractual terms of loans for either commercial or credit reasons. The terms of a loan in good standing may be modified for commercial reasons to provide competitive pricing to borrowers. Loans are also modified for credit reasons where the contractual terms are modified to grant a concession to a borrower that may be experiencing financial difficulty.

For all financial assets modifications of the contractual terms may result in derecognition of the original asset when the changes to the terms of the loans are considered substantial. These terms include interest rate, authorized amount, term, or type of underlying collateral. The original loan is derecognized and the new loan is recognized at its fair value. The difference between the carrying value of the derecognized asset and the fair value of the new asset is recognized in the Consolidated Statement of Income.

For all loans, performing and credit-impaired, where the modification of terms did not result in the derecognition of the loan, the gross carrying amount of the modified loan is recalculated based on the present value of the modified cash flows discounted at the original effective interest rate and any gain or loss from the modification is recorded in the provision for credit losses line in the Consolidated Statement of Income.

Definition of default

The Bank considers a financial instrument to be in default as a result of one or more loss events that occurred after the date of initial recognition of the instrument and the loss event has a negative impact on the estimated future cash flows of the instrument that can be reliably estimated. This includes events that indicate:

- significant financial difficulty of the borrower;
- default or delinquency in interest or principal payments;
- high probability of the borrower entering a phase of bankruptcy or a financial reorganization;
- measurable decrease in the estimated future cash flows from the loan or the underlying assets that back the loan.

The Bank considers that default has occurred and classifies the financial asset as impaired when it is more than 90 days past due, with the exception of credit card receivables that are treated as defaulted when 180 days past due, unless reasonable and supportable information demonstrates that a more lagging default criterion is appropriate.

Write-off policy

The Bank writes off an impaired financial asset (and the related impairment allowance), either partially or in full, when there is no realistic prospect of recovery. Where financial assets are secured, write-off is generally after receipt of any proceeds from the realization of security. In circumstances where the net realizable value of any collateral has been determined and there is no reasonable expectation of further recovery, write-off may be earlier. Credit card receivables 180 days past due are written-off. In subsequent periods, any recoveries of amounts previously written off are credited to the provision for credit losses in the Consolidated Statement of Income.

Purchased loans

All purchased loans are initially measured at fair value on the date of acquisition. As a resultno allowance for credit losses would be recorded in the Consolidated Statement of Financial Position on the date of acquisition. Purchased loans may fit into either of the two categories: Performing loans or Purchased Credit Impaired (PCI) loans.

Purchased performing loans follow the same accounting as originated performing loans and are reflected in Stage 1 on the date of the acquisition. They will be subject to a 12-month allowance for credit losses which is recorded as a provision for credit losses in the Consolidated Statement of Income. The fair value adjustment set up for these loans on the date of acquisition is amortized into interest income over the life of these loans.

PCI loans are reflected in Stage 3 and are always subject to lifetime allowance for credit losses. Any changes in the expected cash flows since the date of acquisition are recorded as a charge/recovery in the provision for credit losses in the Consolidated Statement of Income at the end of all reporting periods subsequent to the date of acquisition.

Modification of financial instruments in the context of interest rate benchmark reform – Phase 2 amendments

Effective November 1, 2020

When the basis for determining the contractual cash flows of a financial asset or financial liability measured at amortized cost is changed as a result of interest rate benchmark reform (IBOR reform), the Bank updates the effective interest rate of the financial asset or financial liability similar to a floating rate financial instrument and does not derecognize or adjust the carrying amount (the practical expedient). The practical expedient is applied only when the modification is required as a direct consequence of IBOR reform, and the new basis for determining the contractual cash flows is economically equivalent to the previous basis. If changes are made to a financial asset or financial liability in addition to changes to the basis for determining the contractual cash flows required by the interest rate benchmark reform, then the Bank sequentially updates the effective interest first to reflect the change required by IBOR reform and then applies its policies on modification or derecognition of financial assets and financial liabilities.

Offsetting of financial instruments

Financial assets and financial liabilities with the same counterparty are offset, with the net amount reported in the Consolidated Statement of Financial Position, only if there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis, or to realize the assets and settle the liabilities simultaneously. When financial assets and financial liabilities are offset in the Consolidated Statement of Financial Position, the related income and expense items will also be offset in the Consolidated Statement of Income, unless specifically prohibited by an applicable accounting standard.

Cash and deposits with financial institutions

Cash and deposits with financial institutions comprises cash, cash equivalents, demand deposits with banks and other financial institutions, highly liquid investments that are readily convertible to cash, subject to insignificant risk of changes in value. These investments are those with less than three months maturity from the date of acquisition.

Precious metals

Precious metals are carried at fair value less costs to sell, and any changes in value are credited or charged to non-interest income – trading revenues in the Consolidated Statement of Income.

Securities purchased and sold under resale agreements

Securities purchased under resale agreements (reverse repurchase agreements) require the purchase of securities by the Bank from a counterparty with an agreement entered to resell the securities at a fixed price at a future date. Since the Bank is reselling the securities at a fixed price at a future date, the risks and rewards have not been transferred to the Bank. The Bank has the right to liquidate the securities purchased in the event of counterparty default.

Whereas securities sold under agreements to repurchase (repurchase agreements) require the sale of securities by the Bank to a counterparty with an agreement entered simultaneously to purchase the securities back at a fixed price at a future date. Since the Bank is purchasing the securities back at a fixed price at a future date, the risks and rewards have not been transferred from the Bank. The counterparty has the right to use the collateral pledged by the Bank in the event of default.

These agreements are treated as collateralized financing arrangements and are initially recognized at amortized cost. The party disbursing the cash takes possession of the securities serving as collateral for the financing and having a market value equal to, or in excess of, the principal amount loaned. The securities received under reverse repurchase agreements and securities delivered under repurchase agreements are not recognized on, or derecognized from, the Consolidated Statement of Financial Position, unless the risks and rewards of ownership are obtained or relinquished. The related interest income and interest expense are recorded on an accrual basis using the effective interest rate in the Consolidated Statement of Income.

Obligations related to securities sold short

Obligations related to securities sold short arise in dealing and market-making activities where debt securities and equity shares are sold without possessing such securities.

Similarly, if securities purchased under an agreement to resell are subsequently sold to third parties, the obligation to return the securities is recorded as a short sale within obligations related to securities sold short in the Consolidated Statement of Financial Position. These trading liabilities are measured at fair value with any gains or losses included in non-interest income – trading revenues in the Consolidated Statement of Income. Interest expense accruing on debt securities sold short is recorded in interest expense – other, in the Consolidated Statement of Income.

Securities lending and borrowing

Securities lending and borrowing transactions are usually collateralized by securities or cash. The transfer of the securities to counterparties is only reflected on the Consolidated Statement of Financial Position if the risks and rewards of ownership are also transferred. For cash collateral advanced or received, the Bank presents these transactions as securities sold under repurchase agreement or securities purchased under reverse repurchase agreement, respectively. Interest income on cash collateral paid and interest expense on cash collateral received together with securities lending income and securities borrowing fee are reported in the Consolidated Statement of Income.

Securities borrowed are not recognized on the Consolidated Statement of Financial Position unless they are then sold to third parties, in which case the obligation to return the securities is recorded as a trading liability and measured at fair value with any gains or losses included in non-interest income – trading revenues, in the Consolidated Statement of Income.

Derivative instruments

Derivative instruments are contracts whose value is derived from interest rates, foreign exchange rates, commodity prices, equity prices or other financial variables. Most derivative instruments can be characterized as interest rate contracts, foreign exchange and gold contracts, commodity contracts, equity contracts or credit contracts. Derivative instruments are either exchange-traded contracts or negotiated over-the-counter contracts. Negotiated over-the-counter contracts include swaps, forwards and options.

The Bank enters into these derivative contracts for trading purposes, as well as to manage its risk exposures (i.e., to manage the Bank's non-trading interest rate, foreign currency and other exposures). Trading activities are undertaken to meet the needs of the Bank's customers, as well as for the Bank's own account.

Derivatives embedded in other financial liabilities or host contracts are treated as separate stand-alone derivatives when the following conditions are met:

- their economic characteristics and risks are not closely related to those of the host contract;
- a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and
- the combined contract is not held for trading or designated at fair value through profit or loss.

Where an embedded derivative is separable from the host contract but the fair value, as at the acquisition or reporting date, cannot be reliably measured separately, the entire combined contract is measured at fair value. All embedded derivatives are presented on a combined basis with the host contracts although they are separated for measurement purposes when conditions requiring separation are met. Subsequent changes in fair value of embedded derivatives are recognized in non-interest income in the Consolidated Statement of Income.

All derivatives, including embedded derivatives that must be separately accounted for, are recorded at fair value in the Consolidated Statement of Financial Position. The determination of the fair value of derivatives includes consideration of credit risk, estimated funding costs and ongoing direct costs over the life of the instruments. Inception gains or losses on derivatives are only recognized where the valuation is dependent only on observable market data, otherwise, they are deferred and amortized over the life of the related contract, or until the valuation inputs become observable.

The gains and losses resulting from changes in fair values of trading derivatives are included in non-interest income – trading revenues in the Consolidated Statement of Income.

Changes in the fair value of non-trading derivatives that do not qualify for hedge accounting are recorded in the Consolidated Statement of Income in non-interest income – other. Where derivative instruments are used to manage the volatility of share-based payment expense, these derivatives are carried at fair value with changes in the fair value in relation to units hedged included in non-interest expenses – salaries and employee benefits in the Consolidated Statement of Income.

Changes in the fair value of derivatives that qualify for hedge accounting are recorded as non-interest income – other in the Consolidated Statement of Income for fair value hedges and other comprehensive income in the Consolidated Statement of Comprehensive Income for cash flow hedges and net investment hedges.

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Hedge accounting

The Bank has elected to continue to apply the hedge accounting requirements of IAS 39. Also, the Bank has implemented the additional hedge accounting disclosures that are required by the IFRS 9 related amendments to IFRS 7 "Financial Instruments: Disclosures".

The Bank formally documents all hedging relationships and its risk management objective and strategy for undertaking these hedge transactions at inception. The hedge documentation includes identification of the asset, liability, firm commitment or highly probable forecasted transaction being hedged, the nature of the risk being hedged, the hedging instrument used and the method used to assess the effectiveness of the hedge.

The Bank also formally assesses, both at each hedge's inception and on an ongoing basis, whether the hedging instruments are highly effective in offsetting changes in fair value or cash flows of the hedged items within an 80-125% range. This assessment incorporates a comparison of critical terms of the hedged and hedging item, and regression analysis, in order to determine (i) whether the hedge relationship is expected to be highly effective going forward (i.e. prospective effectiveness assessment) and (ii) whether the hedge was actually highly effective for the designated period (i.e. retrospective effectiveness assessment). In assessing prospective hedge effectiveness for a hedge relationship directly impacted by the IBOR reform, the Bank will assume that the benchmark interest rate is not altered as a result of the IBOR reform. In instances of assessing retrospective hedge effectiveness where a hedge relationship directly impacted by the IBOR reform falls outside of the 80-125% range solely as a result of the IBOR reform, the Bank will continue hedge accounting as long as other hedge accounting requirements are met.

Hedge ineffectiveness is measured and recorded in non-interest income – other in the Consolidated Statement of Income. When the basis for determining the contractual cash flows of existing hedge relationships changes as a result of the IBOR reform, the Bank updates the hedge documentation without discontinuing the hedging relationship. For cash flow hedges where the interest benchmark changes as a result of the IBOR reform, the Bank deems that the corresponding hedge reserve in OCI is based on the alternative benchmark rate to determine whether the hedged future cash flows are expected to occur. For changes that are in addition to those required by the IBOR reform, the Bank first determines whether the additional changes result in discontinuation of hedge relationships before applying the relief. In addition, when determining the hedged risk, the Bank may designate an alternative benchmark rate risk component that is not currently separately identifiable, as the Bank reasonably expects that the alternative benchmark rate will become separately identifiable within a 24-month period.

There are three types of hedges: (i) fair value hedges, (ii) cash flow hedges and (iii) net investment hedges.

Fair value hedges

For fair value hedges, the change in fair value of the hedging instrument is offset in the Consolidated Statement of Income by the change in fair value of the hedged item attributable to the hedged risk. For hedges that are discontinued, the hedged item is no longer adjusted for changes in fair value. The cumulative fair value adjustment of the hedged item is amortized to interest income over its remaining term to maturity or written off to non-interest income directly if the hedged item ceases to exist. The Bank utilizes fair value hedges primarily to convert fixed rate financial instruments to floating rate financial instruments. Hedged items include debt securities, loans, deposit liabilities and subordinated debentures. Hedging instruments include single-currency interest rate swaps and cross-currency interest rate swaps.

Cash flow hedges

For cash flow hedges, the change in fair value of the hedging instrument, to the extent effective, is recorded in other comprehensive income until the corresponding gains and losses on the hedged item are recognized in income. For hedges that are discontinued, the cumulative unrealized gain or loss recognized in other comprehensive income is reclassified to interest income and/or salaries and employee benefits as the variability in the cash flows of hedged item affects income. However, if the hedged item is derecognized or the forecasted transaction is no longer expected to occur, the unrealized gain or loss is reclassified immediately to non-interest income and/or salaries and employee benefits. The Bank utilizes cash flow hedges primarily to hedge the variability in cash flows relating to floating rate financial instruments and highly probable forecasted revenues and expenses. Hedged items include debt securities, loans, deposit liabilities, subordinated debentures and highly probable forecasted transactions. Hedging instruments include single-currency interest rate swaps, cross-currency interest rate swaps, total return swaps, foreign currency forwards and foreign currency assets or liabilities.

For the Bank's cash flow hedges of forecasted transactions that are directly affected by the IBOR Reform, it is assumed that the benchmark interest rate will not be altered as a result of the IBOR Reform for purposes of assessing whether the transactions are highly probable or whether the transactions are still expected to occur.

Net investment hedges

For net investment hedges, the change in fair value of the hedging instrument, to the extent effective, is recorded in other comprehensive income until the corresponding cumulative translation adjustments on the hedged net investment are recognized in income. The Bank designates foreign currency liabilities and foreign currency forwards as hedging instruments to manage the foreign currency exposure and impact on capital ratios arising from foreign operations.

Property and equipment

Land is carried at cost. Buildings (including building fittings), equipment, and leasehold improvements are carried at cost less accumulated depreciation and accumulated impairment losses, if any. Cost includes expenditures that are directly attributable to the acquisition of the asset. Depreciation is calculated using the straight-line method over the estimated useful life of the related asset less any residual value as follows: buildings – 40 years, building fittings – 15 years, equipment 3 to 10 years, and leasehold improvements – lease term determined by the Bank. Depreciation expense is included in the Consolidated Statement of Income under non-interest expenses – depreciation and amortization. Depreciation methods, useful lives and residual values are reassessed at each financial year-end and adjusted as appropriate.

When major components of building and equipment have different useful lives, they are accounted for separately and depreciated over each component's estimated useful life.

Net gains and losses on disposal are included in non-interest income – other in the Consolidated Statement of Income in the year of disposal.

Assets held-for-sale

Non-current non-financial assets (and disposal groups) are classified as held-for-sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. These assets meet the criteria for classification as held-for-sale if they are available for immediate sale in their present condition and their sale is considered highly probable to occur within one year.

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Non-current non-financial assets classified as held-for-sale are measured at the lower of their carrying amount and fair value (less costs to sell) and are presented within other assets in the Consolidated Statement of Financial Position. Any subsequent write-down to fair value less costs to sell is recognized in the Consolidated Statement of Income, in non-interest income. Any subsequent increase in the fair value less costs to sell, to the extent this does not exceed the cumulative write-down, is also recognized in non-interest income, together with any realized gains or losses on disposal.

Non-financial assets acquired in exchange for loans as part of an orderly realization are recorded as assets held-for-sale or assets held-for-use. If the acquired asset does not meet the requirement to be considered held-for-sale, the asset is considered held-for-use, measured initially at cost which equals the carrying value of the loan and accounted for in the same manner as a similar asset acquired in the normal course of business.

Business combinations and goodwill

The Bank follows the acquisition method of accounting for the acquisition of subsidiaries. The Bank considers the date on which control is obtained and it legally transfers the consideration for the acquired assets and assumed liabilities of the subsidiary to be the date of acquisition. The cost of an acquisition is measured at the fair value of the consideration paid. The fair value of the consideration transferred by the Bank in a business combination is calculated as the sum of the acquisition date fair value of the assets transferred by the Bank, the liabilities incurred by the Bank to former owners of the acquiree, and the equity interests, including any options, issued by the Bank. The Bank recognizes the acquisition date fair values of any previously held investment in the subsidiary and contingent consideration as part of the consideration transferred in exchange for the acquisition. A gain or loss on any previously held investments of an acquiree is recognized in non-interest income – other in the Consolidated Statement of Income.

In general, all identifiable assets acquired (including intangible assets) and liabilities assumed (including any contingent liabilities) are measured at the acquisition date fair value. The Bank records identifiable intangible assets irrespective of whether the assets have been recognized by the acquiree before the business combination. Non-controlling interests, if any, are recognized at their proportionate share of the fair value of identifiable assets and liabilities, unless otherwise indicated. Where the Bank has an obligation to purchase a non-controlling interest for cash or another financial asset, a portion of the non-controlling interest is recognized as a financial liability based on management's best estimate of the present value of the redemption amount. Where the Bank has a corresponding option to settle the purchase of a non-controlling interest by issuing its own common shares, no financial liability is recorded.

Effective November 1, 2020, the narrow scope amendment as required by IFRS 3 *Business Combinations*, applies prospectively to new transactions. The amendment clarifies the determination of whether an acquisition is of a business or a group of assets. Distinguishing between a business and a group of assets is important because an acquirer recognizes goodwill only when acquiring a business.

Any excess of the cost of acquisition over the Bank's share of the net fair value of the identifiable assets acquired and liabilities assumed is recorded as goodwill. If the cost of acquisition is less than the fair value of the Bank's share of the identifiable assets acquired and liabilities assumed, the resulting gain is recognized immediately in non-interest income – other in the Consolidated Statement of Income.

During the measurement period (which is within one year from the acquisition date), the Bank may, on a retrospective basis, adjust the amounts recognized at the acquisition date to reflect new information obtained about facts and circumstances that existed as of the acquisition date.

The Bank accounts for acquisition-related costs as expenses in the periods in which the costs are incurred and the services are received.

Subsequent to acquisition, the Bank accounts for the following assets and liabilities recognized in a business combination as described below:

- Contingent liabilities, until resolved, are measured at the higher of the amount that would be recognized as a provision or the amount initially recognized, with any change recognized in the Consolidated Statement of Income.
- Indemnification assets are measured on the same basis as the item to which the indemnification relates.
- Contingent consideration classified as a liability is measured at fair value, with any change recognized in the Consolidated Statement of Income.
- Liabilities to non-controlling interest holders when remeasured at the end of each reporting period, a corresponding change is recorded in equity.

After initial recognition of goodwill in a business combination, goodwill in aggregate is measured at cost less any accumulated impairment losses. Goodwill is not amortized but tested for impairment annually and when circumstances indicate that the carrying value may be impaired.

Goodwill is reviewed at each reporting date to determine whether there is any indication of impairment. For the purpose of impairment testing, goodwill acquired in a business combination is, on the acquisition date, allocated to each of the Bank's group of cash-generating units (CGUs) that is expected to benefit from the combination. CGUs to which goodwill has been allocated are aggregated so that the level at which impairment is tested reflects the lowest level at which goodwill is monitored for internal management purposes. Goodwill impairment, at a standalone subsidiary level, may not in itself result in an impairment at the consolidated Bank level.

The Bank determines the carrying value of the CGU using a regulatory capital approach based on credit, market, and operational risks, and leverage, consistent with the Bank's capital attribution for business line performance measurement. The recoverable amount is the greater of fair value less costs of disposal and value in use. If either fair value less costs of disposal or value in use exceeds the carrying amount, there is no need to determine the other. The recoverable amount of the CGU has been determined using the fair value less costs of disposal method. The estimation of fair value less costs of disposal involves significant judgment in the determination of inputs. In determining fair value less costs of disposal, an appropriate valuation model is used which considers various factors including normalized net income, control premiums and price earnings multiples. These calculations are corroborated by valuation multiples, quoted share prices for publicly traded subsidiaries or other available fair value indicators. An impairment loss is recognized if the carrying amount of the CGU exceeds the recoverable amount. An impairment loss, in respect of goodwill, is not reversed.

Intangible assets

Intangible assets represent identifiable non-monetary assets and are acquired either separately or through a business combination or generated internally. The Bank's intangible assets are mainly comprised of computer software, customer relationships, contract intangibles, core deposit intangibles and fund management contracts.

The cost of a separately acquired intangible asset includes its purchase price and directly attributable costs of preparing the asset for its intended use. Intangibles acquired as part of a business combination are initially recognized at fair value.

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In respect of internally generated intangible assets, cost includes all directly attributable costs necessary to create, produce, and prepare the asset to be capable of operating in the manner intended by management.

After initial recognition, an intangible asset is carried at its cost less any accumulated amortization and accumulated impairment losses.

Intangible assets that have finite useful lives are initially measured at cost and are amortized on a straight-line basis over their useful lives as follows: computer software – 5 to 10 years; and other intangible assets – 5 to 20 years. Amortization expense is included in the Consolidated Statement of Income under operating expenses – depreciation and amortization. As intangible assets are considered to be non-financial assets, the impairment model for non-financial assets is applied. Intangible assets with indefinite useful lives are not amortized but are tested for impairment annually and when circumstances indicate that the carrying value may be impaired.

Impairment of non-financial assets

The carrying amount of the Bank's non-financial assets, other than goodwill and indefinite life intangible assets and deferred tax assets which are separately addressed, is reviewed at each reporting date to determine whether there is any indication of impairment. For the purpose of impairment testing, non-financial assets that cannot be tested individually are grouped together into the smallest group of assets that generate cash inflows from continuing use that are largely independent from the cash inflows of other assets or groups of assets.

If any indication of impairment exists then the asset's recoverable amount is estimated. The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs of disposal. The Bank's corporate assets do not generate separate cash inflows. If there is an indication that a corporate asset may be impaired, then the recoverable amount is determined for the CGU to which the corporate asset belongs.

An impairment loss is recognized if the carrying amount of an asset or a CGU exceeds its recoverable amount. Impairment losses of continuing operations are recognized in the Consolidated Statement of Income in those expense categories consistent with the nature of the impaired asset. Impairment losses recognized in prior periods are reassessed at each reporting date for any indication that the loss had decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized. Such reversal is recognized in the Consolidated Statement of Income.

Significant judgment is applied in determining the non-financial asset's recoverable amount and assessing whether certain events or circumstances constitute objective evidence of impairment.

Corporate income taxes

The Bank follows the balance sheet liability method for corporate income taxes. Under this method, deferred tax assets and liabilities represent the cumulative amount of tax applicable to temporary differences which are the differences between the carrying amount of the assets and liabilities, and their values for tax purposes. Deferred tax assets are recognized only to the extent it is probable that sufficient taxable profits will be available against which the benefit of these deferred tax assets can be utilized.

Deferred tax assets and liabilities are measured using enacted or substantively enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled.

Deferred and current tax assets and liabilities are only offset when they arise in the same tax reporting group and where the Bank has both the legal right and the intention to settle on a net basis or to realize the asset and settle the liability simultaneously.

The Bank maintains provisions for uncertain tax positions that it believes appropriately reflect the risk of tax positions under discussion, audit, dispute, or appeal with tax authorities, or which are otherwise considered to involve uncertainty. These provisions are made using the Bank's best estimate of the amount expected to be paid based on an assessment of all relevant factors, which are reviewed at the end of each reporting period. It is possible that additional liability and income tax expense could arise in the future, depending on the acceptance of the Bank's tax positions by the relevant tax authorities in the jurisdictions in which the Bank operates.

Income tax is recognized in the Consolidated Statement of Income except where it relates to items recognized in other comprehensive income or directly in equity, in which case income tax is recognized in the same line as the related item.

Leases

Effective November 1, 2019

At inception of a contract, the Bank assesses whether a contract is, or contains, a lease. A contract is a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. When the Bank is a lessee it recognizes a right-of-use ("ROU") asset and a lease liability except for short-term leases for assets that have a lease term of 12 months or less and leases of low value items. For short-term leases and low value items the Bank recognizes the lease payment associated with these leases as an expense on a straight-line basis over the lease term.

Asset

A ROU is an asset that represents a lessee's right to use an underlying asset for the lease term. The ROU asset is initially measured at cost, which is based on the initial amount of the lease liability, and any direct costs incurred, any lease payments made at or before the commencement date net of lease incentives received, and estimated decommissioning costs.

The ROU asset is subsequently measured at cost less accumulated depreciation and accumulated impairment losses, if any. The ROU asset is depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the ROU asset or the end of the lease term. The depreciation is recorded in Depreciation and amortization in the Consolidated Statement of Income. In addition, the ROU asset is adjusted for certain remeasurements of the lease liability.

Liability

At commencement date, the Bank initially measures the lease liability at the present value of the future lease payments, discounted using the Bank's incremental borrowing rate that takes into account the Bank's credit risk and economic environment in which the lease is entered. The lease liability is subsequently measured at amortized cost using the effective interest method. It is re-measured if the Bank changes its assessment of whether it will exercise a purchase, extension or termination option. Interest expense is recorded in Interest expense – Other in the Consolidated Statement of Income.

When the lease liability is re-measured in this way, a corresponding adjustment is made to the carrying amount of the ROU asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

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Presentation
The Bank presents ROU assets in Property and equipment and lease liabilities in Other liabilities in the Consolidated Statement of Financial Position.

Determining lease term
The Bank's expectation of exercising the option to renew a lease is determined by assessing if the Bank is "reasonably certain" to exercise that option. The Bank will be reasonably certain to exercise an option when factors create a significant economic incentive to do so. This assessment considers the following criteria: key locations for its branch network, locations on which the Bank has spent significant capital on renovation work, contribution to profit, value of locations based on current economic environment and the remaining term of existing leases.

Effective prior to November 1, 2019

Bank as a lessor
Assets leased to customers under agreements which transfer substantially all the risks and rewards of ownership, with or without ultimate legal title, are classified as finance leases and presented within loans in the Consolidated Statement of Financial Position. When assets held are subject to a finance lease, the leased assets are derecognized and a receivable is recognized which is equal to the present value of the minimum lease payments, discounted at the interest rate implicit in the lease. Initial direct costs incurred in negotiating and arranging a finance lease are incorporated into the receivable through the discount rate applied to the lease. Finance lease income is recognized over the lease term based on a pattern reflecting a constant periodic rate of return on the net investment in the finance lease. Finance lease income is included in the Consolidated Statement of Income under interest income from loans.

Assets leased to customers under agreements which do not transfer substantially all the risks and rewards of ownership are classified as operating leases. The leased assets are included within property and equipment on the Bank's Consolidated Statement of Financial Position. Rental income is recognized on a straight-line basis over the period of the lease in non-interest income – other in the Consolidated Statement of Income. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognized as an expense on a straight-line basis over the lease term.

Bank as a lessee
Assets held under finance leases are initially recognized as property and equipment in the Consolidated Statement of Financial Position at an amount equal to the fair value of the leased asset or, if lower, the present value of the minimum lease payments. The corresponding finance lease obligation is included in other liabilities in the Consolidated Statement of Financial Position. The discount rate used in calculating the present value of the minimum lease payments is the interest rate implicit in the lease. Contingent rentals are recognized as expense in the periods in which they are incurred.

Operating lease rentals payable are recognized as an expense on a straight-line basis over the lease term, which commences when the lessee controls the physical use of the asset. Lease incentives are treated as a reduction of rental expense and are also recognized over the lease term on a straight-line basis. Contingent rentals arising under operating leases are recognized as an expense in the period in which they are incurred.

Sale and lease-back
Where the Bank enters into a sale lease-back transaction for a non-financial asset at fair market value that results in the Bank retaining an operating lease (where the buyer/lessor retains substantially all risks and rewards of ownership), any gains and losses are recognized immediately in net income. Where the sale lease-back transaction results in a finance lease, any gain on sale is deferred and recognized in net income over the remaining term of the lease.

Leasehold improvements
Leasehold improvements are investments made to customize buildings and offices occupied under operating lease contracts to make them suitable for their intended purpose. The present value of estimated reinstatement costs to bring a leased property into its original condition at the end of the lease, if required, is capitalized as part of the total leasehold improvements costs. At the same time, a corresponding liability is recognized to reflect the obligation incurred. Reinstatement costs are recognized in net income through depreciation of the capitalized leasehold improvements over their estimated useful life.

Provisions
A provision, including for restructuring, is recognized if, as a result of a past event, the Bank has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation.

The amount recognized as a provision is the Bank's best estimate of the consideration required to settle the present obligation, taking into account the risks and uncertainties surrounding the obligation. If the effect of the time value of money is considered material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liability. The increase in the provision due to the passage of time is recorded as interest expense – other in the Consolidated Statement of Income.

Insurance contracts
Gross premiums for life insurance contracts are recognized as income when due. Gross premiums for non-life insurance business, primarily property and casualty, are recognized as income over the term of the insurance contracts. Unearned premiums represent the portion of premiums written in the current year that relate to the period of risk after the reporting date. Insurance claims recoveries are accounted as income in the same period as the related claims.

Gross insurance claims for life insurance contracts reflect the cost of all claims arising during the year. Gross insurance claims for property and casualty insurance contracts include paid claims and movements in outstanding claim liabilities. Insurance premiums ceded to reinsurers are accounted as an expense in the same period as the premiums for the direct insurance contracts to which they relate.

Guarantees
A guarantee is a contract that contingently requires the Bank to make specified payments to reimburse the holder for a loss it incurs because a specified debtor failed to make payment when due in accordance with the original or modified terms of a debt instrument. Guarantees include standby letters of credit, letters of guarantee, indemnifications, credit enhancements and other similar contracts. Guarantees that qualify as a

derivative are accounted for in accordance with the policy for derivative instruments. For guarantees that do not qualify as a derivative, a liability is recorded for the fair value of the obligation assumed at inception. The fair value of the obligation at inception is generally based on the discounted cash flow of the premium to be received for the guarantee, resulting in a corresponding asset. Subsequent to initial recognition, such guarantees are measured at the higher of the initial amount, less amortization to recognize any fee income earned over the period, and the best estimate of the amount required to settle any financial obligation arising as a result of the guarantee. Any increase in the liability is reported in the Consolidated Statement of Income.

Employee benefits

The Bank provides pension and other benefit plans for eligible employees in Canada and internationally. Pension benefits are offered in the form of defined benefit pension plans (generally based on an employee's length of service and earnings), and in the form of defined contribution pension plans (where the Bank's contribution is fixed and there is no legal or constructive obligation to pay further amounts). Other benefits provided include post-retirement health care, dental care and life insurance, along with other long-term employee benefits such as long-term disability benefits.

Defined benefit pension plans and other post-retirement benefit plans

The cost of these employee benefits is actuarially determined each year using the projected unit credit method. The calculation uses management's best estimate of a number of assumptions – including the discount rate, future compensation, health care costs, mortality, as well as the retirement age of employees. The most significant assumption is the discount rate used to determine the defined benefit obligation, which is set by reference to the yields on high quality corporate bonds that have durations that match the terms of the Bank's obligations. Separate discount rates are used to determine the annual benefit expense in Canada and the U.S. These rates are determined with reference to the yields on high quality corporate bonds with durations that match the various components of the annual benefit expense. The discount rate used to determine the annual benefit expense for all other plans is the same as the rate used to determine the defined benefit obligation.

The Bank's net asset or liability in respect of employee benefit plans is calculated separately for each plan as the difference between the present value of future benefits earned in respect of service for prior periods and the fair value of plan assets. The net asset or liability is included in other assets and other liabilities, as appropriate, in the Consolidated Statement of Financial Position. When the net amount in the Consolidated Statement of Financial Position is an asset, the recognized asset is limited to the present value of any economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan.

The current service cost, net interest expense (income), past service cost (credit), settlement gain (loss) and administrative expense are recognized in net income. Net interest expense (income) is calculated by applying the discount rate to the net defined benefit asset or liability. When the benefits of a plan are improved (reduced), a past service cost (credit) is recognized immediately in net income.

Remeasurements comprising of actuarial gains and losses, the effect of the asset ceiling and the return on plan assets in excess of or less than the interest income on the fair value of assets are recognized immediately in the Consolidated Statement of Financial Position with a charge or credit to the Statement of Other Comprehensive Income (OCI) in the period in which they occur. Amounts recorded in OCI are not recycled to the Consolidated Statement of Income.

Other long-term employee benefits

Other long-term employee benefits are accounted for similarly to defined benefit pension plans and other post-retirement benefit plans described above, except that remeasurements are recognized in the Consolidated Statement of Income in the period in which they arise.

Defined contribution plans

The costs of such plans are equal to contributions payable by the Bank to employees' accounts for service rendered during the period and expensed.

Short-term employee benefits

Short-term employee benefits are expensed as the related service is provided and a liability is measured on an undiscounted basis net of payments made.

Interest and similar income and expenses

For all non-trading interest-bearing financial instruments, interest income or expense is recorded in net interest income using the effective interest rate. This is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument or a shorter period, where appropriate, to the gross carrying amount of the financial asset or financial liability. The calculation takes into account all the contractual terms of the financial instrument (for example, prepayment options) and includes any fees or incremental costs that are directly attributable to the instrument and are an integral part of the effective interest rate, but not future credit losses.

For trading financial instruments, mark-to-market changes including related interest income or expense are recorded in non-interest income – trading revenues.

The carrying amount of interest-bearing financial instruments, measured at amortized cost or classified as FVOCI, is adjusted if the Bank revises its estimates of payments or receipts. The adjusted carrying amount is calculated based on the original effective interest rate and the change in carrying amount is recorded as non-interest income in the Consolidated Statement of Income.

Once the carrying value of a financial asset or a group of similar financial assets has been reduced due to an impairment loss, interest income continues to be recognized based on net effective interest rate inherent in the investment.

Loan origination costs are deferred and amortized into interest income using the effective interest method over the expected term of the loan. Loan fees are recognized in interest income over the appropriate lending or commitment period. Mortgage prepayment fees are recognized in interest income when received, unless they relate to a minor modification to the terms of the mortgage, in which case the fees are deferred and amortized using the effective interest method over the remaining period of the original mortgage.

Loan syndication fees are deferred and amortized in interest income over the term of the loan where the yield the Bank retains is less than that of the comparable lenders in the syndicate.

Loan commitment fees for loans that are likely to be drawn down and other credit related fees are deferred (together with any incremental costs) and recognized as part of the interest income on the loan. When it is unlikely that a loan will be drawn down, the loan commitment fees are recognized in non-interest income.

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Fee and commission revenues

Revenue is recognized once the Bank's customer has obtained control of the service. The transfer of control occurs when the Bank's customer has the ability to direct the use of and obtain the benefits of the banking services and the contractual performance obligation to the customer has been satisfied. The Bank records revenue gross of expenses where it is the principal in performing a service to the customer and net of expenses where the Bank it is an agent for these services. The assessment of principal or agent requires judgement on the basis of whether the Bank controls the services before they are transferred to the customer. From time to time, the Bank may receive variable consideration such as performance fees. These fees are only recognized when it is highly probable that the Bank will not need to reverse a significant amount of revenue once the uncertainty relating to the actual consideration received is resolved. Judgement is required to estimate these fees.

Card revenues include interchange fees, annual fees and other card related fees. Interchange fees are calculated as a percentage of the transaction and are recognized on the transaction date. Annual fees are recognized in income over 12 months. Other card fees are transaction-based and are recognized on the transaction date.

The Bank operates various loyalty points programs, which allow customers to accumulate points when using the Bank's products and services. Loyalty point liabilities are subject to periodic remeasurement to reflect the expected cost of redemption. Where the customer has the option to redeem points for statement credits, the cost of the loyalty program is presented net of card fees. Where points can only be redeemed for goods or services, interchange revenue allocated to the loyalty rewards is recognized when the rewards are redeemed. Reward costs are recorded in non-interest expense.

Banking services fees consist of fees earned on personal, business and government deposit activities. Personal deposit-related fees consist of account maintenance and various transaction-based services. Business and government deposit-related fees consist of commercial deposit and treasury management services and other cash management services. These fees are recognized on the transaction date or over time as services are provided to the customer.

Credit fees include fees earned for providing letters of credit and guarantee, loan commitments, bankers' acceptances, and for arranging loan syndications. These fees are recognized on the transaction date or over time as services are provided based on contractual agreements with the customer.

Mutual funds fees include management and administration fees which are earned in the Bank's wealth management business. These fees are calculated as a percentage of the fund's net asset value and recognized as the service is provided. From time to time, the Bank may also recognize performance fees from some funds. These fees are only recognized to the extent that it is highly probable that a significant reversal of revenue will not occur.

Brokerage fees relate to fees earned for providing full-service and discount brokerage services to clients. These fees are contractually agreed and can be asset-based or linked to individual transactions. Such fees are recognized as the service is provided to clients or on the trade date.

Investment management and trust fees include administration, trust services and other investment services provided to clients. These fees are contractually agreed upon and can be linked to portfolio values or individual transactions. Such fees are recognized as the service is provided to clients to the extent that it is highly probable that a significant reversal of revenue will not occur.

Underwriting and other advisory fees relate to fees earned for services provided to clients in relation to the placement of debt and equities. Such fees also include services to clients for mergers, acquisitions, financial restructurings and other corporate finance activities. These fees are recognized when the service has been performed and/or contractual milestones are completed. Performance and completion fees are variable consideration and generally contingent on the successful completion of a transaction.

Other fees and commissions include commissions earned on the sale of third party insurance products to the Bank's customers. Such fees and commissions are recognized when the performance obligation is completed.

Fee and commission expenses

Fee and commission expenses relate to transaction and service fees which are expensed as the services are received.

Dividend income

Dividend income on equity securities is recognized when the Bank's right to receive payment is established, which is on theex-dividend date for listed equity securities.

Share-based payments

Share-based payments awarded to employees are recognized as compensation expense in the Consolidated Statement of Income over the vesting period based on the number of awards expected to vest including the impact of expected forfeitures. For awards that are delivered in tranches, each tranche is considered a separate award and accounted for separately.

Stock appreciation rights and other awards that must be settled for cash are classified as liabilities. Liability-classified awards arere-measured to fair value at each reporting date while they remain outstanding, with any changes in fair value recognized in compensation expense in the period. The liability is expensed over the vesting period which incorporates the re-measurement of the fair value and a revised forfeiture rate that anticipates units expected to vest.

Plain vanilla options and other awards that must be settled for shares are classified as equity awards. Equity-classified awards are expensed based on the grant date fair value with a corresponding increase to equity – other reserves in the Consolidated Statement of Financial Position. If an option is exercised, both the exercise price proceeds together with the amount recorded in other reserves is credited to equity – common shares in the Consolidated Statement of Financial Position.

For stock appreciation rights and plain vanilla options, the Bank estimates fair value using an option pricing model. The option pricing model requires inputs such as the exercise price of the option, the current share price, the risk free interest rate, expected dividends, expected volatility (calculated using an equal weighting of implied and historical volatility) and specific employee exercise behaviour patterns based on statistical data. For other awards, fair value is the quoted market price of the Bank's common shares at the reporting date.

Where derivatives are used to economically hedge share-based payment expense, related mark-to-market gains and losses are included in non-interest expenses – salaries and employee benefits in the Consolidated Statement of Income.

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Dividends on shares

Dividends on common and preferred shares and other equity instruments are recognized as a liability and deducted from equity when they are declared and no longer at the discretion of the Bank.

Segment reporting

Management's internal view is the basis for the determination of operating segments. The operating segments are those whose operating results are regularly reviewed by the Bank's chief operating decision-maker to make decisions about resources to be allocated to the segment and assess its performance. The Bank has four operating segments: Canadian Banking, International Banking, Global Wealth Management and Global Banking and Markets. The Other category represents smaller operating segments, including Group Treasury and other corporate items, which are not allocated to an operating segment. These segments offer different products and services and are managed separately based on the Bank's management and internal reporting structure.

The results of these business segments are based upon the internal financial reporting systems of the Bank. The accounting policies used in these segments are generally consistent with those followed in the preparation of the consolidated financial statements by the Bank. The only notable accounting measurement difference is the grossing up of revenues which are tax-exempt and income from associate corporations to an equivalentbefore-tax basis for those affected segments. This change in measurement enables comparison of income arising from taxable and tax-exempt sources.

Given the complexity of the Bank, various estimates and allocation methodologies are used in the preparation of the business segment financial information. The funding value of assets and liabilities is transfer-priced at wholesale market rates, and corporate expenses are allocated to each segment on an equitable basis using various parameters. As well, capital is apportioned to the business segments on a risk-based methodology. Transactions between segments are recorded within segment results as if conducted with a third-party and are eliminated on consolidation.

Earnings per share (EPS)

Basic EPS is computed by dividing net income for the period attributable to the Bank's common shareholders by the weighted-average number of common shares outstanding during the period.

Diluted EPS is calculated by dividing adjusted net income for the period attributable to common shareholders by the weighted-average number of diluted common shares outstanding for the period. In the calculation of diluted earnings per share, earnings are adjusted for changes in income or expenses that would result from the issuance of dilutive shares. The weighted-average number of diluted common shares outstanding for the period reflects the potential dilution that would occur if options, securities or other contracts that entitle their holders to obtain common shares had been outstanding from the beginning of the period (or a later date) to the end of the period (or an earlier date). Instruments determined to have an antidilutive impact for the period are excluded from the calculation of diluted EPS.

The number of additional shares for inclusion in diluted EPS for share-based payment options is determined using the treasury share method. Under this method, the net number of incremental common shares is determined by assuming that in-the-money stock options are exercised and the proceeds are used to purchase common shares at the average market price during the period.

The number of additional shares associated with capital instruments that potentially result in the issuance of common shares is based on the terms of the contract. On occurrence of contingencies as specified in the Non-Viability Contingent Capital (NVCC) instruments, the number of additional common shares associated with the NVCC subordinated debentures, NVCC subordinated additional Tier 1 capital notes, NVCC limited recourse capital notes and NVCC preferred shares is based on an automatic conversion formula as set out in the respective prospectus supplements.

4 Interest Rate Benchmark Reform

Overview

Major interest rate benchmark review and reform has been undertaken globally, with a view to either reforming or phasing out certain interbank offered rates (IBORs), including the Canadian Dollar Offered Rate (CDOR). As alternatives to IBORs, regulators have recommended markets begin adopting alternative risk-free rates (RFRs). The Bank has significant exposures to the London Interbank Offered Rate (LIBOR), particularly USD and GBP LIBOR.

IBOR reform and the associated move from IBORs to RFRs carries systemic and market risks. These risks, such as increased volatility, lack of liquidity and uneven fallback practices, may impact market participants. In addition to these inherent risks, the Bank is exposed to operational risk arising from the renegotiation of contracts, technology readiness to issue and trade products referencing RFRs, and conduct with clients and counterparties.

The Bank has established an enterprise-wide program (the Transition Program) to support the Bank's transition away from LIBOR and other IBORs to RFRs. The focus of the Transition Program is to address risks by identifying the exposures to various IBORs, evaluating the existing contract language when the IBORs cease to be published or available, developing the capabilities to issue and trade products referencing RFRs and communicating with clients and counterparties regarding industry developments pertaining to IBOR reform. The Transition Program provides quarterly updates to the Bank's Regulatory Oversight Committee, and annually, to the Risk Committee of the Board of Directors, regarding the status of transition plans for migrating the Bank's IBOR-linked products and upgrading systems and processes.

On March 5, 2021, the FCA confirmed that the publication of most tenors of USD LIBOR (i.e., overnight, one-month, three-month, six-month and 12-month LIBOR) ceases immediately following a final publication on June 30, 2023. The scheduled cessation date for GBP, JPY, CHF and EUR LIBORs, remains December 31, 2021. This announcement provides certainty regarding the future of the various LIBOR currencies and tenors and serves to set the fixed spread adjustment that will be used in industry standard fallback provisions for both derivative and cash products.

While the most widely used USD LIBOR tenors will continue to be published in their current form until June 30, 2023, the Federal Reserve Board has advised that banks should no longer write USD LIBOR linked contracts after December 31, 2021, and sooner, where practicable. Similarly, the Office of the Superintendent of Financial Institutions on June 22, 2021, stated that Federally Regulated Financial Institutions should stop using USD LIBOR as a reference rate as soon as possible and should not enter into transactions using USD LIBOR as a reference rate after December 31, 2021.

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On July 29, 2021, the Alternative Reference Rate Committee (ARRC) announced its formal recommendation of the CME Group's forward-looking Secured Overnight Financing Rate (SOFR) term rates. This recommendation marks the completion of the ARRC's Paced Transition Plan, the series of specific steps established by the ARRC in 2017 to encourage the adoption of SOFR as an alternative to USD LIBOR.

On November 16, 2021, the FCA confirmed that it will allow the temporary use of "synthetic" sterling and yen LIBOR rates in all legacy LIBOR contracts, other than cleared derivatives, that have not been amended by December 31, 2021.

The change to contractual terms of financial assets and financial liabilities with rates that are subject to IBOR reform is not yet complete. The Bank continues to work towards meeting the regulatory and industry-wide recommended milestones on cessation of LIBOR and will be working with clients and counterparties to issue products based on alternative reference rates.

Non-derivative financial assets and financial liabilities

The following table reflects the Bank's IBOR exposure to non-derivative financial assets and financial liabilities as at October 31, 2021, subject to reform that has yet to transition to alternative benchmark rates. The Bank's IBOR exposure to financial instruments includes USD LIBOR maturing after June 30, 2023, and GBP LIBOR and Other Rates with most maturing after December 31, 2021. Six-month and twelve-month CDOR tenors ceased to be published after May 17, 2021. These exposures could remain outstanding until IBOR ceases and will therefore transition in the future.

	Carrying amount							
	As at October 31, 2021				As at November 1, 2020			
($ millions)	USD LIBOR	GBP LIBOR	Other Rates[1][2]	Total	USD LIBOR	GBP LIBOR	Other Rates[1]	Total
	Maturing after June 30, 2023	Maturing after December 31, 2021			Maturing after June 30, 2023	Maturing after December 31, 2021		
Non-derivative financial assets[4]	**$ 38,517**	**$ 1,013**	**$ 1,289**	**$ 40,819**	$ 27,500	$ 1,468	$ 695	$ 29,663
Non-derivative financial liabilities[5]	**1,306**	**–**	**750[3]**	**2,056**	1,229	949	750[3]	2,928

(1) Other rates include exposures to EUR LIBOR, EONIA, CHF LIBOR, JPY LIBOR, and six-month CDOR.
(2) Includes exposures to SGD Swap Offer Rate (SOR) maturing after June 30, 2023.
(3) The Series 2006-1 Bank Deposit Note of $750 million is currently at a fixed rate and will subsequently reset to a six-month CDOR based rate after December 31, 2036.
(4) Non derivative financial assets include carrying amounts of debt securities and loans (debt securities and loans measured at amortized cost are gross of allowance for credit losses).
(5) Non-derivative financial liabilities include carrying amounts of deposits, subordinated debentures and other liabilities.

In addition to the exposures noted in the table above, Additional Tier 1 (AT1) capital instruments of $1.56 billion (US$1.25 billion) that are currently at a fixed rate and, if outstanding, will subsequently reset to three-month USD LIBOR on October 12, 2022.

Derivatives and undrawn commitments

The following table reflects the Bank's IBOR exposure to derivatives and undrawn commitments as at October 31, 2021, subject to reform that has yet to transition to alternative benchmark rates. The Bank's IBOR exposure to financial instruments includes USD LIBOR maturing after June 30, 2023, and GBP LIBOR and Other Rates with most maturing after December 31, 2021. These exposures could remain outstanding until IBOR ceases and will therefore transition in the future.

	Notional amount							
	As at October 31, 2021				As at November 1, 2020			
($ millions)	USD LIBOR	GBP LIBOR	Other Rates[1][2]	Total	USD LIBOR	GBP LIBOR	Other Rates[1]	Total
	Maturing after June 30, 2023	Maturing after December 31, 2021			Maturing after June 30, 2023	Maturing after December 31, 2021		
Derivatives								
Single currency interest rate swaps	**$ 600,359**	**$ 711,297**	**$ 17,178**	**$ 1,328,834**	$ 410,590	$ 699,339	$ 16,697	$ 1,126,626
Cross currency interest rate swaps[3]	**280,968**	**44,300**	**29,191**	**354,459**	231,539	31,052	19,084	281,675
Other[4]	**38,078**	**35,538**	**–**	**73,616**	20,885	29,486	–	50,371
Undrawn commitments	**32,454**	**760**	**454**	**33,668**	20,354	1,094	464	21,912

(1) Other rates include exposures to EUR LIBOR, EONIA, CHF LIBOR, JPY LIBOR and six-month and twelve-month CDOR. These CDOR tenors ceased to publish after May 17, 2021.
(2) Includes exposures to SGD SOR maturing after June 30, 2023.
(3) For cross currency interest rate swaps, where both legs are referencing rates directly impacted by the benchmark reform, the relevant notional amount for both legs are shown separately to reflect the risks relating to the reform for each rate.
(4) Other derivatives include futures, forward rate agreements and options.

Hedging derivatives

The following table reflects the Bank's IBOR exposure to hedging derivatives as at October 31, 2021, subject to reform that has yet to transition to alternative benchmark rates. The Bank's IBOR exposure to hedging derivatives include USD LIBOR maturing after Jun 30, 2023, and GBP LIBOR maturing after December 31, 2021. These exposures will remain outstanding until IBOR ceases and will therefore transition in the future.

	Notional amount					
	As at October 31, 2021			As at October 31, 2020		
($ millions)	USD LIBOR	GBP LIBOR	Total	USD LIBOR[2]	GBP LIBOR	Total
	Maturing after June 30, 2023	Maturing after December 31, 2021		Maturing after December 31, 2021		
Hedging derivatives[1]	**$ 61,936**	**$ 5,725**	**$ 67,661**	$ 105,200	$ 4,900	$ 110,100

(1) For cross currency swaps where both legs are referencing rates directly impacted by the Interest Rate Benchmark Reform, and a CAD leg is inserted to create two separate hedging relationships, the relevant notional amount for both legs are included in this table.
(2) Prior year USD LIBOR balance is not restated as the FCA announced in March 2021 for extending the cessation date for USD LIBOR from December 31, 2021, to June 30, 2023.

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5 Future Accounting Developments

The Bank actively monitors developments and changes in accounting standards from the IASB, as well as requirements from the other regulatory bodies, including OSFI. The Bank is currently assessing the impact of adoption of new standards issued by the IASB on its consolidated financial statements and also evaluating the alternative elections available on transition.

Effective November 1, 2023

Insurance Contracts

On May 18, 2017, the IASB issued IFRS 17 Insurance Contracts, which provides a comprehensive principle-based framework for the measurement and presentation of all insurance contracts. The new standard will replace IFRS 4 Insurance Contracts and requires insurance contracts to be measured using current fulfillment cash flows and for revenue to be recognized as the service is provided over the coverage period. The standard is required to be adopted retrospectively; if this is impractical, the modified retrospective or fair value method may be used.

On June 25, 2020, the IASB issued amendments to IFRS 17. The amendments are designed to make it easier for companies to explain their financial performance, reduce costs due to simplification of some requirements in the standard and ease transition by deferring the effective date of the standard by two years. The standard will be effective as of November 1, 2023 for the Bank. The Bank continues to monitor developments related to the standard and industry discussions on the application of the standard.

The implementation of IFRS 17 is a multi-year project consisting of technology implementation and policy and process changes. The project has an established structure and governance along with a Project Management Office to assist the Executive Steering and Project Operations Committees. The committees are comprised of representatives from Global Finance, Global Insurance Actuarial Services, Information Technology and the Insurance Business Operation. The Bank has selected its technology partner in implementing the system to capture data and prepare additional disclosures, including for the separate insurance legal entity financial statements, under the new standard. The Bank continues to assess and formulate the actuarial and accounting policies under IFRS 17 to quantify the impact of adopting the new standard.

6 Cash and Deposits with Financial Institutions

As at October 31 ($ millions)	2021	2020
Cash and non-interest-bearing deposits with financial institutions	**$ 9,693**	$ 11,123
Interest-bearing deposits with financial institutions	**76,630**	65,337
Total	**$ 86,323**(1)	$ 76,460(1)

(1) Net of allowances of $1 (2020 – $1).

The Bank is required to maintain balances with central banks, other regulatory authorities and certain counterparties and these amounted to $5,719 million (2020 – $7,121 million) and are included above.

7 Fair Value of Financial Instruments

Determination of fair value

The calculation of fair value is based on market conditions at a specific point in time and therefore may not be reflective of future fair values. The Bank has controls and processes in place to ensure that the valuation of financial instruments is appropriately determined.

The Bank discloses the classification of all financial instruments carried at fair value in a hierarchy based on the determination of fair value. The best evidence of fair value for a financial instrument is the quoted price in an active market. Fair value based on unadjusted quoted market prices for identical instruments in active markets represents a Level 1 valuation. Where possible, valuations are based on quoted prices or observable inputs obtained from active markets. Independent Price Verification (IPV) is undertaken to assess the reliability and accuracy of prices and inputs used in the determination of fair value. The IPV process is performed by price verification groups that are independent from the business. The Bank maintains a list of pricing sources that are used in the IPV process. These sources include, but are not limited to, brokers, dealers and consensus pricing services. The valuation policies relating to the IPV process require that all pricing or rate sources used be external to the Bank. On a periodic basis, an independent assessment of pricing or rate sources is performed to determine market presence or market representative levels.

Quoted prices are not always available for over-the-counter (OTC) transactions, as well as transactions in inactive or illiquid markets. OTC transactions are valued using internal models that maximize the use of observable inputs are used to estimate fair value. The chosen valuation technique incorporates all the factors that market participants would take into account in pricing a transaction. When a fair value is based on all significant market observable inputs, the valuation is classified as Level 2. Financial instruments traded in a less active market are valued using indicative market prices, the present value of cash-flows or other valuation techniques. Fair value estimates normally do not consider forced or liquidation sales.

Where financial instruments trade in inactive markets or when using models where observable parameters do not exist, significant management judgment is required for valuation methodologies and model inputs. Valuations that require the significant use of unobservable inputs are considered Level 3.

The specific inputs and valuation techniques used in determining the fair value of financial instruments are noted below. For Level 3 instruments, additional information is disclosed in the Level 3 sensitivity analysis on page 180.

The fair values of cash and deposits with banks, securities purchased under resale agreements and securities borrowed, customers' liability under acceptances, obligations related to securities sold under repurchase agreements and securities lent, acceptances, and obligations related to securities sold short are assumed to approximate their carrying values, either due to their short-term nature or because they are frequently repriced to current market rates.

Trading loans
Trading loans are comprised of loans that serve as hedges to total return swaps, purchased mortgages pooled for securitization, and precious metal loans. Trading loans that serve as hedges to loan-based credit total return swaps are valued using consensus prices from Bank approved independent pricing services (Level 2). Purchased mortgages that are held prior to securitization are valued using inputs observed from the MBS market (Level 2). Precious metal loans are valued using a discounted cash flow model incorporating observable market inputs, including precious metals spot and forward prices and interest rate curves (Level 2).

Government issued or guaranteed securities
The fair values of government issued or guaranteed debt securities are primarily based on unadjusted quoted prices in active markets, where available (Level 1). Where quoted prices in active markets are not available, the fair value is determined by utilizing recent transaction prices, reliable broker quotes, or pricing services, which derive fair values using only observable valuation inputs, which are significant to the fair values (Level 2).

For securities for which quoted prices are not available, the Bank uses a discounted cash flow method, using the effective yield of a similar instrument adjusted for instrument-specific risk factors that are observable inputs such as credit spread and contracted features (Level 2).

Corporate and other debt
Corporate and other debt securities are valued using unadjusted quoted prices from independent market data providers or third-party broker quotes from an active market (Level 1). Where direct prices from active markets are not available, the valuation is performed with a yield-based valuation approach (Level 2). In some instances, interpolated yields of similar bonds are used to price securities (Level 2). The Bank uses pricing models with observable inputs from market sources such as credit spread, interest rate curves, and recovery rates (Level 2). These inputs are verified through an IPV process on a monthly basis.

For certain securities where there is no active market, no consensus market pricing and no indicative or executable independent third-party quotes, the Bank uses pricing by third-party providers or internal pricing models and cannot readily observe the significant inputs used to price such instruments (Level 3).

Mortgage-backed securities
The fair value of residential mortgage-backed securities is primarily determined using broker quotes and independent market data providers (Level 1/2). In limited circumstances, an internal price-based model may be used with the unobservable inputs that are significant to the fair value (Level 3).

Equity securities
The fair value of equity securities is based on unadjusted quoted prices in active markets, where available (Level 1). Where equity securities are less frequently traded, the most recent exchange-quoted pricing is used to determine fair value (Level 2).

For private equity securities, where quoted prices in active markets are not readily available, the fair value is determined as a multiple of the underlying earnings or percentage of underlying net asset value obtained from third-party general partner statements (Level 3).

Derivatives
Fair values of exchange-traded derivatives are based on unadjusted quoted market prices from an active market (Level 1). Fair values of over-the-counter (OTC) derivatives or inactive exchange-traded derivatives are determined using pricing models, which take into account observable valuation inputs such as current market and contractual prices of the underlying instruments, as well as time value and yield curve or volatility factors underlying the positions (Level 2). The determination of the fair value of derivatives includes consideration of credit risk, estimated funding costs and ongoing direct costs over the life of the instruments.

Derivative products valued using a valuation technique with market-observable inputs mainly include interest rate swaps and options, currency swaps and forward foreign exchange contracts. The most frequently applied valuation techniques include forward pricing and swap models, using present value calculations. The models incorporate various inputs including foreign exchange spot and forward rates and interest rate curves (Level 2).

Derivative products valued using a valuation technique with significant unobservable inputs are long dated contracts (interest rate swaps, currency swaps, option contracts and certain credit default swaps) and other derivative products that reference a basket of assets. These models incorporate certain significant non-observable inputs such as volatility and correlation (Level 3).

Loans
The estimated fair value of loans carried at amortized cost reflects changes in the general level of interest rates and creditworthiness of borrowers that have occurred since the loans were originated or purchased. The particular valuation methods used are as follows:

- Canadian fixed rate residential mortgages are fair valued by discounting the expected future contractual cash flows, taking into account expected prepayments and using management's best estimate of average market interest rates currently offered for mortgages with similar remaining terms (Level 3).
- For fixed rate business and government loans, fair value is determined by discounting the expected future contractual cash flows of these loans at interest rates estimated by using the appropriate currency swap curves for the remaining term, adjusted for a credit mark of the expected losses in the portfolio (Level 3).
- For all other fixed rate loans, fair value is determined by discounting the expected future contractual cash flows of these loans at interest rates estimated by using the appropriate currency swap curves for the remaining term (Level 3).
- For all floating rate loans fair value is assumed to equal book value.

The fair value of loans is not adjusted for the value of any credit protection the Bank has purchased to mitigate credit risk.

Deposits
The fair values of deposits payable on demand or after notice or floating rate deposits payable on a fixed date is assumed to equal book value.

The estimated fair values of Canadian personal fixed rate deposits payable on a fixed date are fair valued by discounting the expected future contractual cash outflows, using management's best estimate of average market interest rates currently offered for deposits with similar remaining terms (Level 2).

Deposits under the Canada Mortgage Bond (CMB) program are fair valued by discounting expected future contractual cash flows using market observable inputs (Level 2).

For all other fixed rate deposits, fair value is determined by discounting the expected future contractual cash flows of these deposits at interest rates estimated by using the appropriate currency swap curves for the remaining term (Level 2).

For structured notes containing embedded features that are bifurcated from plain vanilla notes, the fair value of the embedded derivatives is determined using option pricing models with observable inputs similar to other interest rate or equity derivative contracts (Level 2).

Certain deposits that are designated at FVTPL are structured notes. Their coupon or repayment terms can be linked to the performance of market parameters such as interest rates, equities, and foreign currencies. The fair value of these structured notes is determined using models which incorporate observable market inputs, such as interest rate curves, equity prices, equity volatility and foreign exchange rates (Level 2). Some structured notes have significant unobservable inputs to model valuation such as interest rate volatility and equity correlation (Level 3).

Obligations related to securities sold short
The fair values of these obligations are based on the fair value of the underlying securities, which can include debt or equity securities. The method used to determine fair value is based on the quoted market prices where available in an active market (Level 1 and/or Level 2).

Subordinated debentures and other liabilities
The fair values of subordinated debentures, including debentures issued by subsidiaries which are included in other liabilities, are determined by reference to quoted market prices where available or market prices for debt with similar terms and risks (Level 2). The fair values of other liabilities are determined by the discounted

contractual cash flow method with appropriate currency swap curves for the remaining term (Level 2).

Fair value of financial instruments

The following table sets out the fair values of financial instruments of the Bank using the valuation methods and assumptions described above. The fair values disclosed do not include non-financial assets, such as property and equipment, investments in associates, precious metals, goodwill and other intangible assets.

	2021		2020	
As at October 31 ($ millions)	**Total fair value**	**Total carrying value**	Total fair value	Total carrying value
Assets:				
Cash and deposits with financial institutions	**$ 86,323**	**$ 86,323**	$ 76,460	$ 76,460
Trading assets	**146,312**	**146,312**	117,839	117,839
Securities purchased under resale agreements and securities borrowed	**127,739**	**127,739**	119,747	119,747
Derivative financial instruments	**42,302**	**42,302**	45,065	45,065
Investment securities – FVOCI and FVTPL	**57,042**	**57,042**	79,745	79,745
Investment securities – amortized cost	**18,133**	**18,157**	32,129	31,644
Loans	**641,964**	**636,986**	612,368	603,263
Customers' liability under acceptances	**20,404**	**20,404**	14,228	14,228
Other financial assets	**14,256**	**14,256**	12,700	12,700
Liabilities:				
Deposits	**798,335**	**797,259**	755,395	750,838
Financial instruments designated at fair value through profit or loss	**22,493**	**22,493**	18,899	18,899
Acceptances	**20,441**	**20,441**	14,305	14,305
Obligations related to securities sold short	**40,954**	**40,954**	31,902	31,902
Derivative financial instruments	**42,203**	**42,203**	42,247	42,247
Obligations related to securities sold under repurchase agreements and securities lent	**123,469**	**123,469**	137,763	137,763
Subordinated debentures	**6,733**	**6,334**	7,827	7,405
Other financial liabilities	**39,802**	**40,254**	43,776	42,660

Changes in interest rates, credit spreads and liquidity costs are the main cause of changes in the fair value of the Bank's financial instruments resulting in a favourable or unfavourable variance compared to carrying value. For the Bank's financial instruments carried at cost or amortized cost, the carrying value is not adjusted to reflect increases or decreases in fair value due to market fluctuations, including those due to interest rate changes. For FVOCI investment securities, derivatives and financial instruments measured at FVTPL or designated as fair value through profit or loss, the carrying value is adjusted regularly to reflect the fair value.

Fair value hierarchy

The following table outlines the fair value hierarchy of instruments carried at fair value on a recurring basis and of instruments not carried at fair value.

As at October 31 ($ millions)	2021 Level 1	2021 Level 2	2021 Level 3	2021 Total	2020 Level 1	2020 Level 2	2020 Level 3	2020 Total
Instruments carried at fair value on a recurring basis:								
Assets:								
Precious metals(1)	$ –	$ 755	$ –	$ 755	$ –	$ 1,181	$ –	$ 1,181
Trading assets								
Loans	–	8,113	–	8,113	–	8,352	–	8,352
Canadian federal government and government guaranteed debt	9,272	3,842	–	13,114	9,154	3,882	–	13,036
Canadian provincial and municipal debt	5,556	4,298	–	9,854	–	9,320	–	9,320
US treasury and other US agencies' debt	6,760	63	–	6,823	5,182	–	–	5,182
Other foreign governments' debt	129	9,559	–	9,688	9,230	3,415	–	12,645
Corporate and other debt	2,595	9,185	40	11,820	–	10,570	18	10,588
Equity securities	85,688	160	1	85,849	57,199	361	–	57,560
Other	–	1,051	–	1,051	1,156	–	–	1,156
	$ 110,000	$ 36,271	$ 41	$146,312	$ 81,921	$ 35,900	$ 18	$ 117,839
Investment securities(2)								
Canadian federal government and government guaranteed debt	$ 1,125	$ 4,679	$ –	$ 5,804	$ 1,728	$ 15,100	$ –	$ 16,828
Canadian provincial and municipal debt	1,937	3,218	–	5,155	93	17,454	–	17,547
US treasury and other US agencies' debt	11,462	2,175	–	13,637	11,930	1,299	–	13,229
Other foreign governments' debt	67	26,605	17	26,689	14,101	13,798	23	27,922
Corporate and other debt	10	1,319	27	1,356	265	850	23	1,138
Equity securities	2,879	218	1,304	4,401	1,954	263	864	3,081
	$ 17,480	$ 38,214	$ 1,348	$ 57,042	$ 30,071	$ 48,764	$ 910	$ 79,745
Derivative financial instruments								
Interest rate contracts	$ –	$ 13,124	$ 1	$ 13,125	$ –	$ 21,013	$ 4	$ 21,017
Foreign exchange and gold contracts	–	18,293	–	18,293	–	17,943	–	17,943
Equity contracts	184	3,513	21	3,718	290	2,655	3	2,948
Credit contracts	–	245	–	245	–	480	–	480
Commodity contracts	–	6,921	–	6,921	–	2,677	–	2,677
	$ 184	$ 42,096	$ 22	$ 42,302	$ 290	$ 44,768	$ 7	$ 45,065
Liabilities:								
Deposits	$ –	$ 175	$ –	$ 175	$ –	$ 73	$ –	$ 73
Financial liabilities designated at fair value through profit or loss	–	22,354	139	22,493	–	18,899	–	18,899
Obligations related to securities sold short	35,487	5,467	–	40,954	25,584	6,318	–	31,902
Derivative financial instruments								
Interest rate contracts	–	13,148	15	13,163	–	16,937	17	16,954
Foreign exchange and gold contracts	–	18,171	–	18,171	–	19,511	–	19,511
Equity contracts	307	4,737	6	5,050	599	2,133	2	2,734
Credit contracts	–	30	–	30	–	53	–	53
Commodity contracts	–	5,789	–	5,789	–	2,995	–	2,995
	$ 307	$ 41,875	$ 21	$ 42,203	$ 599	$ 41,629	$ 19	$ 42,247
Instruments not carried at fair value (3)**:**								
Assets:								
Investment securities – amortized cost	$ 3,714	$ 14,417	$ 2	$ 18,133	$ 4,946	$ 26,864	$ 319	$ 32,129
Loans(4)	–	–	400,565	400,565	–	–	374,767	374,767
Liabilities:								
Deposits(4)	–	290,341	–	290,341	–	307,457	–	307,457
Subordinated debentures	–	6,733	–	6,733	–	7,827	–	7,827
Other liabilities	–	24,414	209	24,623	–	26,831	–	26,831

(1) The fair value of precious metals is determined based on quoted market prices and forward spot prices, where applicable.
(2) Excludes debt investment securities measured at amortized cost of $18,157 (October 31, 2020 - $31,644).
(3) Represents the fair value of financial assets and liabilities where the carrying amount is not a reasonable approximation of fair value.
(4) Represents fixed rate instruments.

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Level 3 instrument fair value changes

Financial instruments categorized as Level 3 as at October 31, 2021, in the fair value hierarchy comprise certain foreign government bonds, structured corporate bonds, equity securities, complex derivatives and financial liabilities designated at fair value through profit or loss.

The following table summarizes the changes in Level 3 instruments carried at fair value for the year ended October 31, 2021.

All positive balances represent assets and negative balances represent liabilities. Consequently, positive amounts indicate purchases of assets or settlements of liabilities and negative amounts indicate sales of assets or issuances of liabilities.

	As at October 31, 2021							
($ millions)	Fair value November 1 2020	Gains/(losses) recorded in income	Gains/(losses) recorded in OCI	Purchases/ Issuances	Sales/ Settlements	Transfers into/out of Level 3	Fair value October 31 2021	Change in unrealized gains/(losses) recorded in income for instruments still held[1]
Trading assets								
Corporate and other debt	$ 18	**$ 7**	**$ –**	**$ 28**	**$ (22)**	**$ 9**	**$ 40**	**$ 1**
Equity securities	–	**–**	**–**	**–**	**(72)**	**73**	**1**	**–**
	18	**7**	**–**	**28**	**(94)**	**82**	**41**	**1**
Investment securities								
Other foreign governments' debt	23	**–**	**(6)**	**–**	**–**	**–**	**17**	**n/a**
Corporate and other debt	23	**1**	**(4)**	**7**	**–**	**–**	**27**	**1**
Equity securities	864	**287**	**51**	**253**	**(180)**	**29**	**1,304**	**287**
	910	**288**	**41**	**260**	**(180)**	**29**	**1,348**	**288**
Derivative financial instruments – assets								
Interest rate contracts	4	**(1)**	**–**	**10**	**(9)**	**(3)**	**1**	**(1)**
Equity contracts	3	**4**	**–**	**12**	**–**	**2**	**21**	**4[2]**
Derivative financial instruments – liabilities								
Interest rate contracts	(17)	**(11)**	**–**	**(70)**	**60**	**23**	**(15)**	**(11)[3]**
Equity contracts	(2)	**4**	**–**	**(14)**	**–**	**6**	**(6)**	**4[2]**
	(12)	**(4)**	**–**	**(62)**	**51**	**28**	**1**	**(4)**
Financial liabilities designated at fair value through profit or loss	–	**(2)**	**–**	**(101)**	**–**	**(36)**	**(139)**	**(2)**
Total	$ 916	**$ 289**	**$ 41**	**$ 125**	**$ (223)**	**$ 103**	**$ 1,251**	**$ 283**

(1) These amounts represent the gains and losses from fair value changes of Level 3 instruments still held at the end of the period that are recorded in the Consolidated Statement of Income.
(2) Certain unrealized gains and losses on derivative assets and liabilities are largely offset bymark-to-market changes on other instruments included in trading revenues in the Consolidated Statement of Income, since these instruments act as an economic hedge to certain derivative assets and liabilities.
(3) Certain unrealized losses on interest rate derivative contracts are largely offset bymark-to-market changes on embedded derivatives on certain deposit liabilities in the Consolidated Statement of Income.

The following table summarizes the changes in Level 3 instruments carried at fair value for the year ended October 31, 2020.

	As at October 31, 2020						
($ millions)	Fair value November 1 2019	Gains/(losses) recorded in income[1]	Gains/(losses) recorded in OCI	Purchases/ Issuances	Sales/ Settlements	Transfers into/out of Level 3	Fair value October 31 2020
Precious metals	$ –	$ 1	$ –	$ 23	$ (24)	$ –	$ –
Trading assets	18	6	–	22	(28)	–	18
Investment securities	920	13	7	257	(259)	(28)	910
Derivative financial instruments	(60)	14	–	(21)	32	23	(12)

(1) Gains or losses for items in Level 3 may be offset with losses or gains on related hedges in Level 1 or Level 2.

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Significant transfers

Significant transfers can occur between the fair value hierarchy levels when additional or new information regarding valuation inputs and their refinement and observability becomes available. The Bank recognizes transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

The following significant transfers made between Levels 1 and 2 for the year ended October 31, 2021, were based on whether the fair value was determined using quoted market prices from an active market:

- Trading assets of $10,045 million, investment securities of $3,407 million and obligations related to securities sold short of $2,550 million were transferred out of Level 2 into Level 1.
- Trading assets of $9,972 million, investment securities of $13,522 million and obligations related to securities sold short of $2,235 million were transferred out of Level 1 into Level 2.

The following significant transfers made between Levels 2 and 3 for the year ended October 31, 2021, were based on whether the fair value was determined using significant unobservable inputs:

- Trading equity securities of $72 million were transferred out of Level 2 into Level 3.

There were no significant transfers into and out of Level 3 for the year ended October 31, 2020.

Level 3 sensitivity analysis

The table below sets out information about significant unobservable inputs used in measuring financial instruments categorized as Level 3 in the fair value hierarchy.

	Valuation technique	Significant unobservable inputs	Range of estimates for unobservable inputs[1]	Changes in fair value from reasonably possible alternatives ($ millions)
Investment securities				
Private equity securities[2]	Market comparable	General Partner valuations per net asset value	97%	
		Capitalization rate	3%	(51)/51
Derivative financial instruments				
Interest rate contracts	Option pricing model	Interest rate volatility	37% - 66%	(10)/10
Equity contracts	Option pricing model	Equity volatility	2% - 112%	
		Correlation	0% - 97%	(3)/3
Financial liabilities designated at fair value through profit or loss				
Interest rate contracts	Option pricing model	Interest rate swaption volatility	20% - 273%	(11)/11

(1) The range of estimates represents the actual lowest and highest level inputs used to fair value financial instruments within each financial statement category.
(2) The valuation of private equity securities utilizes net asset values as reported by fund managers. Net asset values are not considered observable as the Bank cannot redeem these instruments at such values. The range for net asset values per unit or price per share has not been disclosed for these instruments since the valuations are not model-based.

The Bank applies judgment in determining unobservable inputs used to calculate the fair value of Level 3 instruments.

The following section discusses the significant unobservable inputs for Level 3 instruments.

General Partner (GP) Valuations per Net Asset Value

Net asset values provided by GPs represent the fair value of investments in private equity securities.

Correlation

Correlation in a credit derivative or debt instrument refers to the likelihood of a single default causing a succession of defaults. It affects the distribution of the defaults throughout the portfolio and therefore affects the valuation of instruments such as collateralized debt obligation tranches. A higher correlation may increase or decrease fair value depending on the seniority of the instrument.

Correlation becomes an input into equity derivative pricing when the relationship between price movements of two or more of the underlying assets is relevant.

Volatility

Volatility for equity derivatives is a measure of asset price fluctuation. Interest rate volatility measures variability of a security yield or interest rate. Historic volatility is often calculated as the annualized standard deviation of daily price or yield variation for a given time period. Implied volatility is such that, when input into an option pricing model, returns a value equal to the current market value of the option.

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8 Trading Assets

(a) Trading securities

An analysis of the carrying value of trading securities is as follows:

As at October 31, 2021 ($ millions)	Remaining term to maturity						
	Within three months	Three to twelve months	One to five years	Five to ten years	Over ten years	No specific maturity	**Carrying value**
Trading securities:							
Canadian federal government issued or guaranteed debt	**$ 868**	**$ 892**	**$ 6,134**	**$ 2,399**	**$ 2,821**	**$ –**	**$ 13,114**
Canadian provincial and municipal debt	**778**	**1,434**	**1,829**	**1,215**	**4,598**	**–**	**9,854**
U.S. treasury and other U.S. agency debt	**61**	**1,097**	**3,366**	**2,123**	**176**	**–**	**6,823**
Other foreign government debt	**3,226**	**2,000**	**4,022**	**293**	**147**	**–**	**9,688**
Common shares	**–**	**–**	**–**	**–**	**–**	**85,016**	**85,016**
Other	**873**	**1,547**	**5,969**	**2,180**	**1,251**	**833**	**12,653**
Total	**$ 5,806**	**$ 6,970**	**$ 21,320**	**$ 8,210**	**$ 8,993**	**$ 85,849**	**$ 137,148**
Total by currency (in Canadian equivalent):							
Canadian dollar	**$ 2,151**	**$ 2,663**	**$ 9,034**	**$ 4,663**	**$ 8,028**	**$ 28,116**	**$ 54,655**
U.S. dollar	**432**	**1,848**	**7,618**	**3,124**	**717**	**42,386**	**56,125**
Mexican peso	**1,038**	**820**	**2,316**	**17**	**40**	**630**	**4,861**
Other currencies	**2,185**	**1,639**	**2,352**	**406**	**208**	**14,717**	**21,507**
Total trading securities	**$ 5,806**	**$ 6,970**	**$ 21,320**	**$ 8,210**	**$ 8,993**	**$ 85,849**	**$ 137,148**

As at October 31, 2020 ($ millions)	Remaining term to maturity						
	Within three months	Three to twelve months	One to five years	Five to ten years	Over ten years	No specific maturity	**Carrying value**
Trading securities:							
Canadian federal government issued or guaranteed debt	$ 938	$ 1,180	$ 5,708	$ 1,915	$ 3,295	$ –	$ 13,036
Canadian provincial and municipal debt	562	818	2,026	1,107	4,807	–	9,320
U.S. treasury and other U.S. agency debt	461	93	3,846	644	138	–	5,182
Other foreign government debt	3,708	3,864	3,715	1,039	319	–	12,645
Common shares	–	–	–	–	–	57,178	57,178
Other	261	1,968	6,013	1,458	887	383	10,970
Total	$ 5,930	$ 7,923	$ 21,308	$ 6,163	$ 9,446	$ 57,561	$ 108,331
Total by currency (in Canadian equivalent):							
Canadian dollar	$ 1,640	$ 2,362	$ 7,402	$ 3,577	$ 8,406	$ 20,637	$ 44,024
U.S. dollar	1,249	1,340	10,150	1,212	707	25,600	40,258
Mexican peso	1,188	1,074	1,727	77	54	282	4,402
Other currencies	1,853	3,147	2,029	1,297	279	11,042	19,647
Total trading securities	$ 5,930	$ 7,923	$ 21,308	$ 6,163	$ 9,446	$ 57,561	$ 108,331

(b) Trading loans

The following table provides the geographic breakdown of trading loans:

As at October 31 ($ millions)	**2021**	2020
Trading loans[1][2]		
U.S.[3]	**$ 5,308**	$ 6,227
Europe[4]	**548**	1,075
Asia Pacific[4]	**15**	141
Canada[4]	**2,034**	266
Other[4]	**208**	643
Total	**$ 8,113**	$ 8,352

(1) Geographic segmentation of trading loans is based upon the location of the ultimate risk of the underlying asset.
(2) Loans are primarily denominated in U.S. dollars.
(3) Includes trading loans that serve as a hedge to loan-based credit total return swaps of $5,203 (2020 – $5,396), while the remaining relates to short-term precious metals trading and lending activities.
(4) These loans are primarily related to short-term precious metals trading and lending activities.

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9 Financial Instruments Designated at Fair Value Through Profit or Loss

In accordance with its risk management strategy, the Bank has elected to designate certain senior note liabilities at fair value through profit or loss to reduce an accounting mismatch between fair value changes in these instruments and fair value changes in related derivatives, and where a hybrid financial liability contains one or more embedded derivatives that are not closely related to the host contract. Changes in fair value of financial liabilities arising from the Bank's own credit risk are recognized in other comprehensive income, without subsequent reclassification to net income.

The cumulative fair value adjustment due to own credit risk is determined at a point in time by comparing the present value of expected future cash flows over the term of these liabilities discounted at the Bank's effective funding rate, and the present value of expected future cash flows discounted at a benchmark rate.

The following table presents the fair value of financial liabilities designated at fair value through profit or loss and their changes in fair value.

	Fair value		Change in fair value		Cumulative change in FV[1]	
	As at		For the year ended			
October 31 ($ millions)	**2021**	2020	**2021**	2020	**2021**	2020
Liabilities						
Senior note liabilities[2]	**$ 22,493**	$ 18,899	**$ (906)**	$ 651	**$ (707)**	$ 199

(1) The cumulative change in fair value is measured from the instruments' date of initial recognition.
(2) Changes in fair value attributable to changes in the Bank's own credit risk are recorded in other comprehensive income. Other changes in fair value are recorded in non-interest income – trading revenues. The offsetting fair value changes from associated derivatives is also recorded in non-interest income – trading revenues.

The following tables present the changes in fair value attributable to changes in the Bank's own credit risk for financial liabilities designated at fair value through profit or loss as well as their contractual maturity and carrying amounts.

	Senior Note Liabilities				
($ millions)	Contractual maturity amount[1]	Carrying Value	Difference between carrying value and contractual maturity amount	Changes in fair value for the period attributable to changes in own credit risk recorded in other comprehensive income	Cumulative changes in fair value attributable to changes in own credit risk[1]
As at October 31, 2021	**$ 21,786**	**$ 22,493**	**$ (707)**	**$ (270)**	**$ (729)**
As at October 31, 2020	$ 19,098	$ 18,899	$ 199	$ (404)	$ (459)

(1) The cumulative change in fair value is measured from the instruments' date of initial recognition.

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10 Derivative Financial Instruments

(a) Notional amounts[1]

The following table provides the aggregate notional amounts of derivative financial instruments outstanding by type and segregated between those used by the Bank in its dealer capacity (Trading) and those derivatives designated in hedging relationships. The notional amounts of these contracts represent the derivatives volume outstanding and do not represent the potential gain or loss associated with the market risk or credit risk of such instruments. Credit derivatives within other derivative contracts are comprised primarily of purchased and sold credit default swap transactions. To a lesser extent, this category also includes total return swaps referenced to loans and debt securities. Other derivative contracts – other includes precious metals other than gold, and other commodities including energy and base metal derivatives.

	2021			2020		
As at October 31 ($ millions)	Trading	Hedging	Total	Trading	Hedging	Total
Interest rate contracts						
Exchange-traded:						
Futures	**$ 123,348**	**$ –**	**$ 123,348**	$ 111,065	$ –	$ 111,065
Options purchased	**2,562**	**–**	**2,562**	2,047	–	2,047
Options written	**1,000**	**–**	**1,000**	–	–	–
	126,910	**–**	**126,910**	113,112	–	113,112
Over-the-counter:						
Forward rate agreements	**820**	**–**	**820**	7,573	–	7,573
Swaps	**336,144**	**27,875**	**364,019**	380,118	27,987	408,105
Options purchased	**38,298**	**–**	**38,298**	26,167	–	26,167
Options written	**40,785**	**–**	**40,785**	29,343	–	29,343
	416,047	**27,875**	**443,922**	443,201	27,987	471,188
Over-the-counter (settled through central counterparties):						
Forward rate agreements	**219,021**	**–**	**219,021**	598,653	–	598,653
Swaps	**3,708,222**	**289,185**	**3,997,407**	2,960,778	236,603	3,197,381
Options purchased	**–**	**–**	**–**	–	–	–
Options written	**–**	**–**	**–**	–	–	–
	3,927,243	**289,185**	**4,216,428**	3,559,431	236,603	3,796,034
Total	**$ 4,470,200**	**$ 317,060**	**$ 4,787,260**	$ 4,115,744	$ 264,590	$ 4,380,334
Foreign exchange and gold contracts						
Exchange-traded:						
Futures	**$ 15,798**	**$ –**	**$ 15,798**	$ 9,548	$ –	$ 9,548
Options purchased	**–**	**–**	**–**	258	–	258
Options written	**–**	**–**	**–**	187	–	187
	15,798	**–**	**15,798**	9,993	–	9,993
Over-the-counter:						
Spot and forwards	**381,737**	**28,642**	**410,379**	354,235	19,114	373,349
Swaps	**502,558**	**67,617**	**570,175**	457,942	78,433	536,375
Options purchased	**16,256**	**–**	**16,256**	33,754	–	33,754
Options written	**16,495**	**–**	**16,495**	32,613	–	32,613
	917,046	**96,259**	**1,013,305**	878,544	97,547	976,091
Over-the-counter (settled through central counterparties):						
Spot and forwards	**16,627**	**–**	**16,627**	27,579	–	27,579
Swaps	**–**	**–**	**–**	–	–	–
Options purchased	**–**	**–**	**–**	–	–	–
Options written	**–**	**–**	**–**	–	–	–
	16,627	**–**	**16,627**	27,579	–	27,579
Total	**$ 949,471**	**$ 96,259**	**$ 1,045,730**	$ 916,116	$ 97,547	$ 1,013,663
Other derivative contracts						
Exchange-traded:						
Equity	**$ 52,335**	**$ –**	**$ 52,335**	$ 45,099	$ –	$ 45,099
Credit	**–**	**–**	**–**	–	–	–
Commodity and other contracts	**31,652**	**–**	**31,652**	27,083	–	27,083
	83,987	**–**	**83,987**	72,182	–	72,182
Over-the-counter:						
Equity	**92,052**	**965**	**93,017**	82,343	582	82,925
Credit	**20,800**	**–**	**20,800**	23,666	–	23,666
Commodity and other contracts	**29,476**	**–**	**29,476**	37,887	–	37,887
	142,328	**965**	**143,293**	143,896	582	144,478
Over-the-counter (settled through central counterparties):						
Equity	**–**	**–**	**–**	–	–	–
Credit	**6,621**	**–**	**6,621**	10,485	–	10,485
Commodity and other contracts	**201**	**–**	**201**	234	–	234
	6,822	**–**	**6,822**	10,719	–	10,719
Total	**$ 233,137**	**$ 965**	**$ 234,102**	$ 226,797	$ 582	$ 227,379
Total notional amounts outstanding	**$ 5,652,808**	**$ 414,284**	**$ 6,067,092**	$ 5,258,657	$ 362,719	$ 5,621,376

(1) The notional amounts represent the amount to which a rate or price is applied to determine the amount of cash flows to be exchanged.

(b) Remaining term to maturity

The following table summarizes the remaining term to maturity of the notional amounts of the Bank's derivative financial instruments by type:

As at October 31, 2021 ($ millions)	Within one year	One to five years	Over five years	Total
Interest rate contracts				
Futures	**$ 68,444**	**$ 54,787**	**$ 117**	**$ 123,348**
Forward rate agreements	**172,600**	**46,433**	**808**	**219,841**
Swaps	**1,461,005**	**1,989,045**	**911,376**	**4,361,426**
Options purchased	**22,432**	**15,694**	**2,734**	**40,860**
Options written	**17,428**	**14,895**	**9,462**	**41,785**
	1,741,909	**2,120,854**	**924,497**	**4,787,260**
Foreign exchange and gold contracts				
Futures	**9,032**	**6,382**	**384**	**15,798**
Spot and forwards	**399,518**	**21,526**	**5,962**	**427,006**
Swaps	**116,067**	**287,705**	**166,403**	**570,175**
Options purchased	**12,215**	**3,976**	**65**	**16,256**
Options written	**14,373**	**2,115**	**7**	**16,495**
	551,205	**321,704**	**172,821**	**1,045,730**
Other derivative contracts				
Equity	**102,031**	**43,146**	**175**	**145,352**
Credit	**15,554**	**7,810**	**4,057**	**27,421**
Commodity and other contracts	**39,966**	**21,182**	**181**	**61,329**
	157,551	**72,138**	**4,413**	**234,102**
Total	**$ 2,450,665**	**$ 2,514,696**	**$ 1,101,731**	**$ 6,067,092**

As at October 31, 2020 ($ millions)	Within one year	One to five years	Over five years	Total
Interest rate contracts				
Futures	$ 63,381	$ 47,648	$ 36	$ 111,065
Forward rate agreements	493,676	105,747	6,803	606,226
Swaps	1,204,974	1,617,615	782,897	3,605,486
Options purchased	9,596	17,011	1,607	28,214
Options written	5,784	15,919	7,640	29,343
	1,777,411	1,803,940	798,983	4,380,334
Foreign exchange and gold contracts				
Futures	7,144	2,404	–	9,548
Spot and forwards	373,511	22,353	5,064	400,928
Swaps	111,610	256,789	167,976	536,375
Options purchased	28,329	5,615	68	34,012
Options written	29,989	2,811	–	32,800
	550,583	289,972	173,108	1,013,663
Other derivative contracts				
Equity	81,897	45,083	1,044	128,024
Credit	19,910	8,965	5,276	34,151
Commodity and other contracts	48,970	15,896	338	65,204
	150,777	69,944	6,658	227,379
Total	$ 2,478,771	$ 2,163,856	$ 978,749	$ 5,621,376

(c) Credit risk

As with other financial assets, derivative instruments are subject to credit risk. Credit risk arises from the possibility that counterparties may default on their obligations to the Bank. However, whereas the credit risk of other financial assets is represented by the principal amount net of any applicable allowance for credit losses, the credit risk associated with derivatives is normally a small fraction of the notional amount of the derivative instrument.

Derivative contracts generally expose the Bank to credit loss if changes in market rates affect a counterparty's position unfavourably and the counterparty defaults on payment. Accordingly, exposure to credit risk of derivatives is represented by the positive fair value of the instrument.

Negotiated over-the-counter derivatives generally present greater credit exposure than exchange-traded contracts. The net change in the exchange-traded contracts is normally settled daily in cash with the exchange. Holders of these contracts look to the exchange for performance under the contract.

The Bank strives to limit credit risk by dealing with counterparties that it believes are creditworthy, and investment grade counterparties account for a significant portion of the credit risk exposure arising from the Bank's derivative transactions as at October 31, 2021. To control credit risk associated with derivatives, the Bank uses similar credit risk management activities and procedures to the approaches used in the lending business in assessing and adjudicating exposure. The Bank utilizes a risk metric, potential future exposure (PFE) for derivatives, to measure utilization

against established credit limits to the counterparty. PFE measures the effect that changes in the market have on derivative exposures throughout the lifetime of the counterparties' trades. Additionally, PFE considers risk mitigants such as netting and collateralization. PFE limits and utilization for derivatives counterparties are authorized and monitored by the Bank's risk management unit.

The Bank obtains the benefit of netting by entering into master netting arrangements with counterparties (typically industry standard International Swaps and Derivatives Association (ISDA) agreements), which allow for a single net settlement of all transactions covered by that agreement in the event of a default or early termination of the transactions. In this manner, the credit risk associated with favourable contracts is eliminated by the master netting arrangement to the extent that unfavourable contracts with the same counterparty are not settled before favourable contracts.

Collateralization is typically documented by way of an ISDA Credit Support Annex (CSA), the terms of which may vary according to each party's view of the other party's creditworthiness. CSAs can require one party to post initial margin at the onset of each transaction. CSAs also allow for variation margin to be called if total uncollateralized mark-to-market exposure exceeds an agreed upon threshold. Such variation margin provisions can be one way (only one party will ever post collateral) or bi-lateral (either party may post collateral depending upon which party is in-the-money). The CSA will also detail the types of collateral that are acceptable to each party, and the adjustments that will be applied against each collateral type. The terms of the ISDA master netting agreements and CSAs are taken into consideration in the calculation of counterparty credit risk exposure (see also page 91 of the 2021 Annual Report).

Derivative instruments used by the Bank include credit derivatives in its investment and loan portfolios: credit protection is sold as an alternative to acquiring exposure to bond or loan assets, and bought to manage or mitigate credit exposures.

The following table summarizes the credit exposure of the Bank's derivative financial instruments. The credit risk amount (CRA) represents the estimated replacement cost, or positive fair value, for all contracts. CRA takes into account master netting or collateral arrangements that have been made[1]. CRA does not reflect actual or expected losses.

The credit equivalent amount (CEA) is the exposure at default (EAD) prescribed in the Capital Adequacy Requirements (CAR) Guidelines of the Office of the Superintendent of Financial Institutions (OSFI). The risk-weighted asset is calculated by multiplying the CEA by the capital requirement (K) times 12.5, where K is a function of the probability of default (PD), loss given default (LGD), maturity and prescribed correlation factors. Other derivative contracts – other includes precious metals other than gold, and other commodities, including energy and base metal derivatives.

	2021				2020			
As at October 31 ($ millions)	Notional amount	Credit risk amount (CRA)(1)	Credit equivalent amount (CEA)(1)	Risk-Weighted Assets	Notional amount	Credit risk amount (CRA)(1)	Credit equivalent amount (CEA)(1)	Risk-Weighted Assets
Interest rate contracts								
Futures	**$ 123,348**	**$ –**	**$ 18**	**$ 1**	$ 111,065	$ –	$ 46	$ –
Forward rate agreements	**219,841**	**32**	**125**	**68**	606,226	52	129	45
Swaps	**4,361,426**	**3,951**	**4,760**	**1,120**	3,605,486	7,418	8,343	2,610
Options purchased	**40,860**	**70**	**44**	**10**	28,214	78	46	13
Options written	**41,785**	**–**	**11**	**3**	29,343	–	21	6
	4,787,260	**4,053**	**4,958**	**1,202**	4,380,334	7,548	8,585	2,674
Foreign exchange and gold contracts								
Futures	**15,798**	**–**	**148**	**3**	9,548	–	42	–
Spot and forwards	**427,006**	**1,604**	**4,455**	**1,404**	400,928	1,492	3,821	1,170
Swaps	**570,175**	**1,128**	**7,287**	**1,660**	536,375	775	6,313	1,680
Options purchased	**16,256**	**351**	**247**	**118**	34,012	933	467	242
Options written	**16,495**	**–**	**14**	**2**	32,800	–	18	2
	1,045,730	**3,083**	**12,151**	**3,187**	1,013,663	3,200	10,661	3,094
Other derivative contracts								
Equity	**145,352**	**1,423**	**9,707**	**1,340**	128,024	1,098	7,091	1,004
Credit	**27,421**	**197**	**304**	**59**	34,151	270	458	116
Commodity and other contracts	**61,329**	**4,562**	**6,610**	**1,182**	65,204	868	3,629	592
	234,102	**6,182**	**16,621**	**2,581**	227,379	2,236	11,178	1,712
Credit Valuation Adjustment	**–**	**–**	**–**	**3,957**	–	–	–	5,330
Total derivatives	**$ 6,067,092**	**$ 13,318**	**$ 33,730**	**$ 10,927**	$ 5,621,376	$ 12,984	$ 30,424	$ 12,810
Amount settled through central counterparties(2)								
Exchange-traded	**226,695**	**–**	**5,200**	**123**	195,287	–	4,194	95
Over-the-counter	**4,239,877**	**–**	**849**	**17**	3,834,332	–	872	17
	$ 4,466,572	**$ –**	**$ 6,049**	**$ 140**	$ 4,029,619	$ –	$ 5,066	$ 112

(1) The amounts presented are net of collateral and master netting agreements at the product level. The total amounts relating to netting and collateral were $88,961 (2020 – $82,081) for CRA, and $67,487 (2020 – $66,686) for CEA.

(2) Amounts are included under total derivatives above. Amounts include exposures settled directly through central counterparties and exposures settled through clearing members of central counterparties.

1 Regulatory haircuts prescribed by the OSFI CAR Guidelines are applied to the collateral balances of the CRA measure.

(d) Fair value

The following table summarizes the fair value of derivatives segregated by type and segregated between trading and those derivatives designated in hedging relationships.

As at October 31 ($ millions)	2021 Average fair value		2021 Year-end fair value		2020 Year-end fair value[1]	
	Favourable	Unfavourable	Favourable	Unfavourable	Favourable	Unfavourable
Trading						
Interest rate contracts						
Forward rate agreements	**$ 58**	**$ 3**	**$ 69**	**$ 3**	$ 138	$ –
Swaps	**13,702**	**11,652**	**9,805**	**9,427**	18,007	13,044
Options	**271**	**233**	**412**	**195**	89	80
	14,031	**11,888**	**10,286**	**9,625**	18,234	13,124
Foreign exchange and gold contracts						
Forwards	**4,430**	**3,931**	**4,823**	**4,154**	4,048	3,448
Swaps	**9,374**	**10,851**	**9,070**	**10,796**	9,931	12,934
Options	**615**	**503**	**357**	**259**	984	752
	14,419	**15,285**	**14,250**	**15,209**	14,963	17,134
Other derivative contracts						
Equity	**3,482**	**3,918**	**3,677**	**5,049**	2,940	2,732
Credit	**239**	**40**	**245**	**30**	480	53
Commodity and other contracts	**4,875**	**4,208**	**6,921**	**5,789**	2,677	2,995
	8,596	**8,166**	**10,843**	**10,868**	6,097	5,780
Trading derivatives' market valuation	**$ 37,046**	**$ 35,339**	**$ 35,379**	**$ 35,702**	$ 39,294	$ 36,038
Hedging						
Interest rate contracts						
Swaps			**$ 2,839**	**$ 3,538**	$ 2,783	$ 3,830
Foreign exchange and gold contracts						
Forwards			**461**	**236**	198	220
Swaps			**3,582**	**2,726**	2,782	2,157
			$ 4,043	**$ 2,962**	$ 2,980	$ 2,377
Other derivative contracts						
Equity			**$ 41**	**$ 1**	$ 8	$ 2
Hedging derivatives' market valuation			**$ 6,923**	**$ 6,501**	$ 5,771	$ 6,209
Total derivative financial instruments as per Statement of Financial Position			**$ 42,302**	**$ 42,203**	$ 45,065	$ 42,247
Less: impact of master netting and collateral[2]			**28,961**	**28,961**	32,081	32,081
Net derivative financial instruments[2]			**$ 13,341**	**$ 13,242**	$ 12,984	$ 10,166

(1) The average fair value of trading derivatives' market valuation for the year ended October 31, 2020 was: favourable $44,942 and unfavourable $44,332. Average fair value amounts are based on the latest 13 month-end balances.
(2) Master netting agreement amounts are based on the capital adequacy criteria of the Basel Committee on Banking Supervision (BCBS) and OSFI. These criteria allow netting where there are legally enforceable contracts which enable net settlement in the event of a default, bankruptcy, liquidation or similar circumstances.

(e) Hedging activities

The Bank manages interest rate risk, foreign currency risk and equity risk through hedge accounting transactions.

Interest rate risk

Single-currency interest rate swaps are used to hedge interest rate risk exposure. In fair value hedges of interest rate risk, the interest rate exposure from fixed rate assets and liabilities is converted from fixed to floating rate exposure. In cash flow hedges of interest rate risk, the interest rate exposure from floating rate assets and liabilities is converted from floating to fixed rate exposure. The Bank generally hedges interest rate risk only to the extent of benchmark interest rates. The total interest cash flows usually comprise a spread in addition to the benchmark rate.

Foreign currency risk

In fair value hedges, cross-currency interest rate swaps and single-currency interest rate swaps are used to manage foreign currency exposure in conjunction with interest rate exposure. Cross-currency interest rate swaps or a combination of cross-currency and single-currency interest rate swaps are mainly used to convert a foreign currency fixed rate exposure to a functional currency floating rate exposure. In hedges of both foreign currency and interest rate exposure, the interest rate risk is generally hedged only to the extent of the benchmark interest rate.

In cash flow hedges, cross-currency interest rate swaps, single-currency interest rate swaps, foreign currency forwards and foreign currency assets or liabilities are used to manage foreign currency exposure, or a combined foreign currency and interest rate exposure. Cross-currency interest rate swaps are used to offset the foreign currency exposure by exchanging the interest cash flows in one currency for interest cash flows in another currency. Single-currency interest rate swaps may be used in conjunction with cross-currency interest rate swaps to convert the foreign currency exposure or resulting functional currency exposure from floating to fixed. Foreign currency forwards and foreign currency denominated assets and liabilities are used to offset the exposure arising from highly probable future cash flows, including purchase considerations for business acquisitions and sale proceeds for business divestitures that are denominated in a foreign currency. In hedges of both foreign currency and interest rate exposure, the interest rate risk is generally hedged only to the extent of the benchmark interest rate.

In net investment hedges, the Bank designates foreign currency liabilities and foreign currency forwards as hedging instruments to manage foreign currency exposure. The designated non-derivative liabilities are denominated in the functional currency of the net investment, such that the foreign currency translation impact from the net investment will be offset by the foreign currency impact from the designated liabilities. The foreign currency forward contracts are structured to sell the functional currency of the net investment in return for the Bank's functional currency.

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Equity risk

Equity risk is created by the Bank's share-based compensation plans awarded to employees. In cash flow hedges, total return swaps are mainly used to offset the equity exposure by exchanging interest payments for payments based on the returns on the underlying shares.

For all of the risks identified above, the economic relationship and hedge ratio are determined using a qualitative and quantitative assessment. This assessment incorporates comparison of critical terms of the hedged and hedging item, and regression analysis. For regression analysis, a hedging relationship is considered highly effective when all of the following criteria are met: correlation between the variables in the regression is at least 0.8 or greater; slope of the regression is within a 0.8-1.25 range; and confidence level of the slope is at least 95%.The main sources of hedge ineffectiveness include the following:

- The use of different discount curves to value the hedged item and the hedging derivative in fair value hedges, in order to reflect the reduced credit risk of collateralized derivatives;
- Differences in the underlying reference interest rate tenor, reset/settlement frequency and floating spread between the hedging instruments and the hedged item.

The Bank has elected to continue to apply the hedge accounting requirements of IAS 39. However, the Bank has implemented the additional hedge accounting disclosures that are required by the IFRS 9 related amendments to IFRS 7 "*Financial Instruments: Disclosures*".

The following table summarizes the notional amounts of derivatives and carrying amounts of cash and deposit liabilities designated as hedging instruments.

	2021				2020			
	Notional amounts(1)				Notional amounts(1)			
	Remaining term to maturity				Remaining term to maturity			
As at October 31 ($ millions)	Within one year	One to five years	Over five years	Total	Within one year	One to five years	Over five years	Total
Fair value hedges								
Interest rate risk – swaps	**$ 21,850**	**$ 127,350**	**$ 14,489**	**$ 163,689**	$ 41,972	$ 115,479	$ 14,873	$ 172,324
Foreign currency/interest rate risk – swaps	**–**	**11**	**–**	**11**	–	116	107	223
Cash flow hedges								
Interest rate risk – swaps	**34,489**	**62,934**	**28,754**	**126,177**	11,990	33,580	11,920	57,490
Foreign currency/interest rate risk – swaps	**16,906**	**23,224**	**7,645**	**47,775**	17,082	33,516	5,720	56,318
Foreign currency risk								
Swaps	**29,002**	**54,434**	**14,425**	**97,861**	25,787	61,137	15,166	102,090
Foreign currency forwards	**10,510**	**–**	**–**	**10,510**	3,000	–	–	3,000
Cash	**66**	**–**	**–**	**66**	71	–	–	71
Equity risk – total return swaps	**316**	**649**	**–**	**965**	171	411	–	582
Net investment hedges								
Foreign currency risk								
Foreign currency forwards	**18,132**	**–**	**–**	**18,132**	16,114	–	–	16,114
Deposit liabilities	**5,714**	**–**	**–**	**5,714**	6,150	–	–	6,150
Total	**$ 136,985**	**$ 268,602**	**$ 65,313**	**$ 470,900**	$ 122,337	$ 244,239	$ 47,786	$ 414,362

(1) Notional amounts relating to derivatives that are hedging multiple risks in both assets and liabilities are included in more than one category.

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The following table shows the average rate or price of significant hedging instruments.

	2021			2020		
	Average rate or price(1)			Average rate or price(1)		
As at October 31	Fixed interest rate	FX rate	Price	Fixed interest rate	FX rate	Price
Fair value hedges						
Interest rate risk – swaps	**1.18%**	**n/a**	**n/a**	1.71%	n/a	n/a
Cash flow hedges						
Interest rate risk – swaps	**1.22%**	**n/a**	**n/a**	2.10%	n/a	n/a
Foreign currency/interest rate risk – swaps						
CAD-USD	**1.33%**	**1.31**	**n/a**	1.30%	1.32	n/a
Foreign currency risk						
Swaps						
CAD-USD	**n/a**	**1.27**	**n/a**	n/a	1.31	n/a
CAD-EUR	**n/a**	**1.50**	**n/a**	n/a	1.49	n/a
CAD-GBP	**n/a**	**1.72**	**n/a**	n/a	1.72	n/a
Foreign currency forwards						
CAD-USD	**n/a**	**1.26**	**n/a**	n/a	1.33	n/a
Equity price risk – total return swaps	**n/a**	**n/a**	**$71.29**	n/a	n/a	$75.40
Net investment hedges						
Foreign currency risk – foreign currency forwards						
CAD-USD	**n/a**	**1.26**	**n/a**	n/a	1.34	n/a
MXN-CAD	**n/a**	**16.77**	**n/a**	n/a	16.60	n/a
PEN-CAD	**n/a**	**3.08**	**n/a**	n/a	2.64	n/a

(1) The average rate or price is calculated in aggregate for all of the Bank's hedge relationships, including hedges of assets and liabilities. The majority of the Bank's hedges have a remaining term to maturity of less than 5 years.

For fair value hedges, the following table contains information related to items designated as hedging instruments, hedged items and ineffectiveness.

	Carrying amount of the hedging instruments(1)		Hedge Ineffectiveness(2)				Accumulated amount of fair value hedge adjustment gains/(losses) on the hedged item(4)	
For the year ended October 31, 2021 ($ millions)	Assets	Liabilities	Gains/(losses) on hedging instrument used to calculate hedge ineffectiveness	Gains/(losses) on hedged item used to calculate hedge ineffectiveness	Ineffectiveness recorded in non-interest income – other	Carrying amount of the hedged item(3)	Active hedges	Discontinued hedges
Fair value hedges								
Interest rate risk – swaps	**$ 1,868**	**$ (967)**	**$ 1,708**	**$ (1,736)**	**$ (28)**			
Investment securities			**790**	**(809)**	**(19)**	**$ 16,315**	**$ 92**	**$ 163**
Loans			**2,233**	**(2,230)**	**3**	**117,009**	**(1,339)**	**5**
Deposit liabilities			**(1,236)**	**1,224**	**(12)**	**(60,444)**	**417**	**(371)**
Subordinated debentures			**(79)**	**79**	**–**	**(4,692)**	**(1)**	**(71)**
Foreign currency/interest rate risk – swaps	**–**	**(1)**	**3**	**(2)**	**1**			
Investment securities			**3**	**(2)**	**1**	**89**	**–**	**(1)**
Total	**$ 1,868**	**$ (968)**	**$ 1,711**	**$ (1,738)**	**$ (27)**	**$ 68,277**	**$ (831)**	**$ (275)**

(1) Comprises unrealized gains/losses and are recorded within derivative financial instruments in assets and liabilities, respectively in the Consolidated Statement of Financial Position.
(2) Includes ineffectiveness related to hedges discontinued during the year ended October 31, 2021.
(3) This represents the carrying value on the Consolidated Statement of Financial Position and comprises amortized cost before allowance for credit losses, plus fair value hedge adjustment, except for investment securities which are carried at fair value.
(4) This represents the accumulated fair value hedge adjustment and is a component of the carrying amount of the hedged item.

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For the year ended October 31, 2020 ($ millions)	Carrying amount of the hedging instruments[1]		Hedge Ineffectiveness[2]				Accumulated amount of fair value hedge adjustment gains/(losses) on the hedged item[4]	
	Assets	Liabilities	Gains/(losses) on hedging instrument used to calculate hedge ineffectiveness	Gains/(losses) on hedged item used to calculate hedge ineffectiveness	Ineffectiveness recorded in non-interest income – other	Carrying amount of the hedged item[3]	Active hedges	Discontinued hedges
Fair value hedges								
Interest rate risk – swaps	$ 1,742	$ (2,456)	$ (392)	$ 377	$ (15)			
Investment securities			(622)	610	(12)	$ 40,785	$ 1,049	$ 249
Loans			(913)	898	(15)	71,081	994	48
Deposit liabilities			996	(985)	11	(59,084)	(846)	(545)
Subordinated debentures			147	(146)	1	(5,638)	(93)	(77)
Foreign currency/interest rate risk – swaps	22	(1)	(1)	–	(1)			
Investment securities			(1)	–	(1)	221	1	–
Total	$ 1,764	$ (2,457)	$ (393)	$ 377	$ (16)	$ 47,365	$ 1,105	$ (325)

(1) Comprises unrealized gains/losses and are recorded within derivative financial instruments in assets and liabilities, respectively in the Consolidated Statement of Financial Position.
(2) Includes ineffectiveness related to hedges discontinued during the year ended October 31, 2020.
(3) This represents the carrying value on the Consolidated Statement of Financial Position and comprises amortized cost before allowance for credit losses, plus fair value hedge adjustment, except for investment securities which are carried at fair value.
(4) This represents the accumulated fair value hedge adjustment and is a component of the carrying amount of the hedged item.

For cash flow hedges and net investment hedges, the following table contains information related to items designated as hedging instruments, hedged items and ineffectiveness.

For the year ended October 31, 2021 ($ millions)	Carrying amount of the hedging instruments[1]		Hedge Ineffectiveness[2]		
	Assets	Liabilities	Gains/(losses) on hedging instrument used to calculate hedge ineffectiveness	Gains/(losses) on hypothetical derivative used to calculate hedge ineffectiveness[3]	Ineffectiveness recorded in non-interest income – other[4]
Cash flow hedges					
Interest rate risk – swaps	**$ 1,204**	**$ (2,818)**	**$ (1,004)**	**$ (1,017)**	**$ 16**
Foreign currency/interest rate risk – swaps	**2,428**	**(180)**	**1,352**	**1,378**	**(5)**
Foreign currency risk					
Swaps	**921**	**(2,298)**	**(1,969)**	**(1,973)**	**1**
Foreign currency forwards	**25**	**(155)**	**72**	**69**	**5**
Cash	**66**	**–**	**(2)**	**(2)**	**–**
Equity risk – total return swaps	**41**	**(1)**	**330**	**330**	**–**
	4,685	**(5,452)**	**(1,221)**	**(1,215)**	**17**
Net investment hedges					
Foreign currency risk					
Foreign currency forwards	**436**	**(81)**	**841**	**841**	**–**
Deposit liabilities	**n/a**	**(5,714)**	**435**	**435**	**–**
	436	**(5,795)**	**1,276**	**1,276**	**–**
Total	**$ 5,121**	**$ (11,247)**	**$ 55**	**$ 61**	**$ 17**

(1) Comprises unrealized gains/losses for derivative instruments and are recorded within derivative financial instruments in assets and liabilities, respectively in the Consolidated Statement of Financial Position.
(2) Includes ineffectiveness related to hedges discontinued during the year ended October 31, 2021.
(3) For cash flow hedges, hypothetical derivatives having critical terms which match those of the underlying hedged item are used to assess hedge ineffectiveness.
(4) For cash flow hedges, ineffectiveness is only recognized in the Consolidated Statement of Income when the life-to-date cumulative change in the hedging instrument exceeds the cumulative change in the hypothetical derivative.

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For the year ended October 31, 2020 ($ millions)	Carrying amount of the hedging instruments(1) Assets	Carrying amount of the hedging instruments(1) Liabilities	Hedge Ineffectiveness(2) Gains/(losses) on hedging instrument used to calculate hedge ineffectiveness	Hedge Ineffectiveness(2) Gains/(losses) on hypothetical derivative used to calculate hedge ineffectiveness(3)	Hedge Ineffectiveness(2) Ineffectiveness recorded in non-interest income – other(4)
Cash flow hedges					
Interest rate risk – swaps	$ 684	$ (1,575)	$ 62	$ 58	$ (2)
Foreign currency/interest rate risk – swaps	1,347	(570)	896	908	13
Foreign currency risk					
Swaps	1,770	(1,385)	1,298	1,276	(2)
Foreign currency forwards	17	(12)	464	464	(1)
Cash	71	–	4	4	–
Equity risk – total return swaps	8	(2)	(173)	(173)	–
	3,897	(3,544)	2,551	2,537	8
Net investment hedges					
Foreign currency risk					
Foreign currency forwards	181	(208)	(77)	(77)	–
Deposit liabilities	n/a	(6,150)	(70)	(70)	–
	181	(6,358)	(147)	(147)	–
Total	$ 4,078	$ (9,902)	$ 2,404	$ 2,390	$ 8

(1) Comprises unrealized gains/losses for derivative instruments and are recorded within derivative financial instruments in assets and liabilities, respectively in the Consolidated Statement of Financial Position.
(2) Includes ineffectiveness related to hedges discontinued during the year ended October 31, 2020.
(3) For cash flow hedges, hypothetical derivatives having critical terms which match those of the underlying hedged item are used to assess hedge ineffectiveness.
(4) For cash flow hedges, ineffectiveness is only recognized in the Consolidated Statement of Income when the life-to-date cumulative change in the hedging instrument exceeds the cumulative change in the hypothetical derivative.

For cash flow hedges and net investment hedges, the following table contains information regarding the impacts on the Consolidated Statement of Other Comprehensive Income on a pre-tax basis.

For the year ended October 31, 2021 ($ millions)	AOCI as at November 1, 2020	Net gains/ (losses) recognized in OCI	Amount reclassified to net income as the hedged item affects net income(1)	Amount reclassified to net income for hedges of forecasted transactions that are no longer expected to occur(1)	Net gains/ (losses) included in non-financial asset/liability as a result of a hedged forecasted transaction	AOCI as at October 31, 2021	Balance in cash flow hedge reserve/unrealized foreign currency translation account as at October 31, 2021 Active hedges	Balance in cash flow hedge reserve/unrealized foreign currency translation account as at October 31, 2021 Discontinued hedges
Cash flow hedges								
Interest rate risk	**$ 412**	**$ (1,033)**	**$ 165**	**$ –**	**$ –**	**$ (456)**	**$ (991)**	**$ 535**
Foreign currency/interest rate risk	**1,054**	**1,434**	**(2,497)**	**–**	**–**	**(9)**	**(192)**	**183**
Foreign currency risk	**(706)**	**(1,998)**	**2,747**	**–**	**–**	**43**	**31**	**12**
Equity risk	**(30)**	**330**	**(239)**	**–**	**–**	**61**	**61**	**–**
	730	**(1,267)**	**176**	**–**	**–**	**(361)**	**(1,091)**	**730**
Net investment hedges								
Foreign currency risk	**(3,136)**	**1,276**	**31**	**–**	**–**	**(1,829)**	**(1,726)**	**(103)**
Total	**$ (2,406)**	**$ 9**	**$ 207**	**$ –**	**$ –**	**$ (2,190)**	**$ (2,817)**	**$ 627**

(1) Amounts reclassified from the cash flow hedge and net investment hedge reserves to net income are recorded in non-interest income-other except for amortization, which is recorded in interest income.

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For the year ended October 31, 2020 ($ millions)	AOCI as at November 1, 2019	Net gains/ (losses) recognized in OCI	Amount reclassified to net income as the hedged item affects net income[1]	Amount reclassified to net income for hedges of forecasted transactions that are no longer expected to occur[1]	Net gains/ (losses) included in non-financial asset/liability as a result of a hedged forecasted transaction	AOCI as at October 31, 2020	Balance in cash flow hedge reserve/unrealized foreign currency translation account as at October 31, 2020	
							Active hedges	Discontinued hedges
Cash flow hedges								
Interest rate risk	$ 463	$ 64	$ (115)	$ –	$ –	$ 412	$ (457)	$ 869
Foreign currency/interest rate risk	208	883	(37)	–	–	1,054	875	179
Foreign currency risk	99	1,769	(2,574)	–	–	(706)	(708)	2
Equity risk	21	(173)	122	–	–	(30)	(30)	–
	791	2,543	(2,604)	–	–	730	(320)	1,050
Net investment hedges								
Foreign currency risk	(3,483)	(147)	494	–	–	(3,136)	(3,067)	(69)
Total	$ (2,692)	$ 2,396	$ (2,110)	$ –	$ –	$ (2,406)	$(3,387)	$ 981

(1) Amounts reclassified from the cash flow hedge and net investment hedge reserves to net income are recorded in non-interest income-other.

11 Offsetting Financial Assets and Financial Liabilities

The Bank is eligible to present certain financial assets and financial liabilities as listed in the table below on a net basis on the Consolidated Statement of Financial Position pursuant to criteria described in Note 3 – Significant accounting policies.

The following tables provide information on the impact of offsetting on the Bank's Consolidated Statement of Financial Position, as well as the financial impact of netting for instruments that are subject to enforceable master netting arrangements or similar agreements, but do not qualify for offsetting in the Consolidated Statement of Financial

Position, as well as available cash and financial instrument collateral.

As at October 31, 2021 ($ millions)

Types of financial assets	Gross amounts of recognized financial instruments	Gross amounts of recognized financial instruments offset in the Consolidated Statement of Financial Position	Net amounts of financial instruments presented in the Consolidated Statement of Financial Position	Related amounts not offset in the Consolidated Statement of Financial Position		Net amount[3]
				Impact of master netting arrangements or similar agreements[1]	Collateral[2]	
Derivative financial instruments	**$ 42,489**	**$ (187)**	**$ 42,302**	**$ (25,293)**	**$ (3,608)**	**$ 13,401**
Securities purchased under resale agreements and securities borrowed	**160,621**	**(32,882)**	**127,739**	**(14,823)**	**(109,981)**	**2,935**
Total	**$ 203,110**	**$ (33,069)**	**$ 170,041**	**$ (40,116)**	**$ (113,589)**	**$ 16,336**
Types of financial liabilities						
Derivative financial instruments	**$ 42,390**	**$ (187)**	**$ 42,203**	**$ (25,293)**	**$ (6,489)**	**$ 10,421**
Obligations related to securities sold under repurchase agreements and securities lent	**156,351**	**(32,882)**	**123,469**	**(14,823)**	**(103,340)**	**5,306**
Total	**$ 198,741**	**$ (33,069)**	**$ 165,672**	**$ (40,116)**	**$ (109,829)**	**$ 15,727**

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As at October 31, 2020 ($ millions)

Types of financial assets	Gross amounts of recognized financial instruments	Gross amounts of recognized financial instruments offset in the Consolidated Statement of Financial Position	Net amounts of financial instruments presented in the Consolidated Statement of Financial Position	Related amounts not offset in the Consolidated Statement of Financial Position: Impact of master netting arrangements or similar agreements(1)	Related amounts not offset in the Consolidated Statement of Financial Position: Collateral(2)	Net amount(3)
Derivative financial instruments	$ 45,333	$ (268)	$ 45,065	$ (27,003)	$ (5,328)	$ 12,734
Securities purchased under resale agreements and securities borrowed	141,861	(22,114)	119,747	(9,690)	(107,241)	2,816
Total	$ 187,194	$ (22,382)	$ 164,812	$ (36,693)	$ (112,569)	$ 15,550
Types of financial liabilities						
Derivative financial instruments	$ 42,515	$ (268)	$ 42,247	$ (27,003)	$ (9,058)	$ 6,186
Obligations related to securities sold under repurchase agreements and securities lent	159,877	(22,114)	137,763	(9,690)	(122,440)	5,633
Total	$ 202,392	$ (22,382)	$ 180,010	$ (36,693)	$ (131,498)	$ 11,819

(1) Amounts that are subject to master netting arrangements or similar agreements but were not offset in the Consolidated Statement of Financial Position because they did not meet the net settlement/simultaneous settlement criteria; or because the rights of set off are conditional upon the default of the counterparty only.
(2) Cash and financial instrument collateral amounts received or pledged in relation to the total amounts of financial assets and financial liabilities, including those that were not offset in the Consolidated Statement of Financial Position. These amounts are disclosed at fair value and the rights of set off are conditional upon the default of the counterparty.
(3) Not intended to represent the Bank's actual exposure to credit risk, as a variety of credit mitigation strategies are employed in addition to offsetting and collateral arrangements.

12 Investment Securities

The following table presents the carrying amounts of the Bank's investment securities per measurement category.

As at October 31 ($ millions)	2021	2020
Debt investment securities measured at FVOCI	**$ 52,611**	$ 76,638
Debt investment securities measured at amortized cost	**18,157**	31,644
Equity investment securities designated at FVOCI	**3,178**	1,859
Equity investment securities measured at FVTPL	**1,223**	1,222
Debt investment securities measured at FVTPL	**30**	26
Total investment securities	**$ 75,199**	$ 111,389

(a) Debt investment securities measured at fair value through other comprehensive income (FVOCI)

As at October 31 ($ millions)	2021 Cost	2021 Gross unrealized gains	2021 Gross unrealized losses	2021 Fair value	2020 Cost	2020 Gross unrealized gains	2020 Gross unrealized losses	2020 Fair value
Canadian federal government issued or guaranteed debt	**$ 5,694**	**$ 135**	**$ 25**	**$ 5,804**	$ 16,374	$ 454	$ –	$ 16,828
Canadian provincial and municipal debt	**5,202**	**12**	**59**	**5,155**	17,295	253	1	17,547
U.S. treasury and other U.S. agency debt	**13,528**	**188**	**79**	**13,637**	12,634	595	–	13,229
Other foreign government debt	**27,126**	**60**	**515**	**26,671**	27,643	274	17	27,900
Other debt	**1,339**	**9**	**4**	**1,344**	1,115	19	–	1,134
Total	**$ 52,889**	**$ 404**	**$ 682**	**$ 52,611**	$ 75,061	$ 1,595	$ 18	$ 76,638

(b) Debt investment securities measured at amortized cost

As at October 31 ($ millions)	2021 Fair Value	2021 Carrying value(1)	2020 Fair Value	2020 Carrying value(1)
Canadian federal and provincial government issued or guaranteed debt	**$ 12,310**	**$ 12,372**	$ 17,955	$ 17,819
U.S. treasury and other U.S. agency debt	**4,712**	**4,687**	11,048	10,726
Other foreign government debt	**970**	**960**	1,766	1,744
Corporate debt	**141**	**138**	1,360	1,355
Total	**$ 18,133**	**$ 18,157**	$ 32,129	$ 31,644

(1) Balances are net of allowances, which are not significant.

(c) Equity investment securities designated at fair value through other comprehensive income (FVOCI)

The Bank has designated certain equity securities at FVOCI shown in the following table as these investments are held for strategic purposes.

As at October 31, 2021 ($ millions)	Cost	Gross unrealized gains	Gross unrealized losses	Fair value
Preferred equity instruments	$ 27	$ 4	$ 3	$ 28
Common shares	2,710	528	88	3,150
Total	$ 2,737	$ 532	$ 91	$ 3,178

As at October 31, 2020 ($ millions)	Cost	Gross unrealized gains	Gross unrealized losses	Fair value
Preferred equity instruments	$ 11	$ –	$ 3	$ 8
Common shares	1,735	228	112	1,851
Total	$ 1,746	$ 228	$ 115	$ 1,859

Dividend income on equity securities designated at FVOCI of $111 million for the year ended October 31, 2021 (2020 – $66 million) has been recognized in interest income.

During the year ended October 31, 2021, the Bank has disposed of certain equity securities designated at FVOCI with a fair value of $1,291 million (2020 – $646 million). These dispositions have resulted in a cumulative gain of $204 million (2020 – loss of $101 million) that remains in OCI.

(d) An analysis of the carrying value of investment securities is as follows:

	Remaining term to maturity						
As at October 31, 2021 ($ millions)	Within three months	Three to twelve months	One to five years	Five to ten years	Over ten years	No specific maturity	Carrying value
Fair value through other comprehensive income							
Debt instruments							
Canadian federal government issued or guaranteed debt	$ 70	$ 474	$ 3,717	$ 323	$ 1,220	$ –	$ 5,804
Yield[1] %	*0.1*	*0.8*	*0.9*	*1.7*	*2.9*	–	*1.3*
Canadian provincial and municipal debt	170	1,248	2,239	1,498	–	–	5,155
Yield[1] %	*0.5*	*0.6*	*1.0*	*1.8*	–	–	*1.1*
U.S. treasury and other U.S. agency debt	147	449	10,786	88	2,167	–	13,637
Yield[1] %	*0.1*	*0.1*	*1.2*	*1.4*	*1.4*	–	*1.2*
Other foreign government debt	7,445	7,411	9,418	2,077	320	–	26,671
Yield[1] %	*1.0*	*1.3*	*2.2*	*2.8*	*2.8*	–	*1.7*
Other debt	78	284	838	129	15	–	1,344
Yield[1] %	*0.6*	*1.9*	*1.8*	*0.1*	*5.9*	–	*1.6*
	7,910	9,866	26,998	4,115	3,722	–	52,611
Equity instruments							
Preferred equity instruments	–	–	–	–	–	28	28
Common shares	–	–	–	–	–	3,150	3,150
						3,178	3,178
Total FVOCI	7,910	9,866	26,998	4,115	3,722	3,178	55,789
Amortized cost							
Canadian federal and provincial government issued or guaranteed debt	499	3,405	8,061	402	5	–	12,372
U.S. treasury and other U.S. agency debt	12	–	750	8	3,917	–	4,687
Other foreign government debt	74	245	329	258	54	–	960
Corporate debt	9	37	56	36	–	–	138
	594	3,687	9,196	704	3,976	–	18,157
Fair value through profit or loss							
Equity instruments	–	–	–	–	–	1,223	1,223
Debt instruments	–	–	22	8	–	–	30
Total investment securities	$ 8,504	$ 13,553	$ 36,216	$ 4,827	$ 7,698	$ 4,401	$ 75,199
Total by currency (in Canadian equivalent):							
Canadian dollar	$ 337	$ 4,102	$ 13,445	$ 2,296	$ 1,240	$ 2,216	$ 23,636
U.S. dollar	705	3,070	16,333	924	6,090	1,911	29,033
Mexican peso	276	919	1,858	157	–	29	3,239
Other currencies	7,186	5,462	4,580	1,450	368	245	19,291
Total investment securities	$ 8,504	$ 13,553	$ 36,216	$ 4,827	$ 7,698	$ 4,401	$ 75,199

(1) Represents the weighted-average yield of fixed income securities.

As at October 31, 2020 ($ millions)	Remaining term to maturity: Within three months	Three to twelve months	One to five years	Five to ten years	Over ten years	No specific maturity	Carrying value
Fair value through other comprehensive income							
Debt instruments							
Canadian federal government issued or guaranteed debt	$ 113	$ 2,363	$ 12,158	$ 941	$ 1,253	$ –	$ 16,828
Yield(1) %	*1.0*	*1.3*	*1.0*	*1.5*	*3.5*	–	*1.2*
Canadian provincial and municipal debt	349	1,521	13,966	1,711	–	–	17,547
Yield(1) %	*1.1*	*0.6*	*1.0*	*1.5*	–	–	*1.0*
U.S. treasury and other U.S. agency debt	1,878	3,469	6,144	849	889	–	13,229
Yield(1) %	*1.7*	*2.4*	*2.2*	*0.4*	*1.2*	–	*2.0*
Other foreign government debt	5,196	8,933	11,525	2,048	198	–	27,900
Yield(1) %	*0.8*	*1.0*	*1.6*	*1.9*	*2.5*	–	*1.3*
Other debt	261	244	572	38	19	–	1,134
Yield(1) %	*(0.7)*	*1.4*	*1.3*	*(0.3)*	*5.9*	–	*0.8*
	7,797	16,530	44,365	5,587	2,359	–	76,638
Equity instruments							
Preferred equity instruments	–	–	–	–	–	8	8
Common shares	–	–	–	–	–	1,851	1,851
						1,859	1,859
Total FVOCI	7,797	16,530	44,365	5,587	2,359	1,859	78,497
Amortized cost							
Canadian federal and provincial government issued or guaranteed debt	1,048	5,452	10,553	761	5	–	17,819
U.S. treasury and other U.S. agency debt	1,199	929	822	10	7,766	–	10,726
Other foreign government debt	164	870	367	268	75	–	1,744
Corporate debt	487	621	243	4	–	–	1,355
	2,898	7,872	11,985	1,043	7,846	–	31,644
Fair value through profit or loss							
Equity instruments	–	–	–	–	–	1,222	1,222
Debt instruments	–	–	26	–	–	–	26
Total investment securities	$ 10,695	$ 24,402	$ 56,376	$ 6,630	$ 10,205	$ 3,081	$ 111,389
Total by currency (in Canadian equivalent):							
Canadian dollar	$ 1,151	$ 8,466	$ 32,302	$ 2,955	$ 1,277	$ 1,101	$ 47,252
U.S. dollar	4,088	7,157	18,171	2,258	8,655	1,463	41,792
Mexican peso	267	850	1,459	198	–	17	2,791
Other currencies	5,189	7,929	4,444	1,219	273	500	19,554
Total investment securities	$ 10,695	$ 24,402	$ 56,376	$ 6,630	$ 10,205	$ 3,081	$ 111,389

(1) Represents the weighted-average yield of fixed income securities.

(e) Net gain on sale of investment securities

The following table presents the net gain on sale of investment securities:

For the year ended October 31 ($ millions)	2021	2020	2019
Debt investment securities measured at amortized cost	**$ 53**	$ 13	$ 34
Debt investment securities measured at FVOCI	**366**	594	317
Net gain on sale of investment securities	**$ 419**	$ 607	$ 351

13 Loans, Impaired Loans and Allowance for Credit Losses

(a) Loans at amortized cost

As at October 31 ($ millions)	2021: Gross loans	2021: Allowance for credit losses	2021: Net carrying amount	2020: Gross loans	2020: Allowance for credit losses	2020: Net carrying amount
Residential mortgages	**$ 319,678**	**$ 802**	**$ 318,876**	$ 284,684	$ 884	$ 283,800
Personal loans	**91,540**	**2,341**	**89,199**	93,758	3,155	90,603
Credit cards	**12,450**	**1,211**	**11,239**	14,797	1,886	12,911
Business and government	**218,944**	**1,272**	**217,672**	217,663	1,714	215,949
Total	**$ 642,612**	**$ 5,626**	**$ 636,986**	$ 610,902	$ 7,639	$ 603,263

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(b) Loans and acceptances outstanding by geography[1]

As at October 31 ($ millions)	2021	2020
Canada:		
Residential mortgages	$ 280,169	$ 245,044
Personal loans	73,592	73,919
Credit cards	6,213	6,399
Business and government	77,353	74,590
	437,327	399,952
United States:		
Personal loans	1,137	823
Business and government	42,295	43,126
	43,432	43,949
Mexico:		
Residential mortgages	9,826	9,160
Personal loans	2,454	3,038
Credit cards	540	659
Business and government	18,902	18,356
	31,722	31,213
Chile:		
Residential mortgages	17,176	17,231
Personal loans	4,680	5,187
Credit cards	2,299	2,307
Business and government	20,806	22,135
	44,961	46,860
Peru:		
Residential mortgages	2,894	2,935
Personal loans	4,536	4,773
Credit cards	467	1,823
Business and government	11,511	12,587
	19,408	22,118
Colombia:		
Residential mortgages	2,222	2,114
Personal loans	1,967	2,201
Credit cards	1,608	1,923
Business and government	6,205	4,654
	12,002	10,892
Other International:		
Residential mortgages	7,391	8,200
Personal loans	3,174	3,817
Credit cards	1,323	1,686
Business and government	41,872	42,215
	53,760	55,918
Total loans	642,612	610,902
Acceptances[2]	20,404	14,228
Total loans and acceptances[3]	663,016	625,130
Allowance for credit losses	(5,663)	(7,716)
Total loans and acceptances net of allowance for credit losses	$ 657,353	$ 617,414

(1) Geographic segmentation is based on the location of the property for residential mortgages; otherwise, the residence of the borrower.
(2) 1.2% of borrowers reside outside Canada.
(3) Loans and acceptances denominated in US dollars were $112,919 (2020 – $114,788), in Chilean pesos $36,126 (2020 – $36,812), Mexican pesos $23,363 (2020 – $23,654), and in other foreign currencies $16,403 (2020 – $49,652).

(c) Loan maturities

As at October 31, 2021	Remaining term to maturity						Rate sensitivity			
($ millions)	Within one year	One to five years	Five to ten years	Over ten years	No specific maturity	Total	Floating	Fixed rate	Non-rate sensitive	Total
Residential mortgages	**$ 38,886**	**$ 247,343**	**$ 12,112**	**$ 19,417**	**$ 1,920**	**$ 319,678**	**$ 83,578**	**$ 233,217**	**$ 2,883**	**$ 319,678**
Personal loans	**15,057**	**33,414**	**5,047**	**1,180**	**36,842**	**91,540**	**37,254**	**53,374**	**912**	**91,540**
Credit cards	**–**	**–**	**–**	**–**	**12,450**	**12,450**	**–**	**12,450**	**–**	**12,450**
Business and government	**108,405**	**100,319**	**4,973**	**230**	**5,017**	**218,944**	**120,313**	**96,546**	**2,085**	**218,944**
Total	**$ 162,348**	**$ 381,076**	**$ 22,132**	**$ 20,827**	**$ 56,229**	**$ 642,612**	**$ 241,145**	**$ 395,587**	**$ 5,880**	**$ 642,612**
Allowance for credit losses	**–**	**–**	**–**	**–**	**(5,626)**	**(5,626)**	**–**	**–**	**(5,626)**	**(5,626)**
Total loans net of allowance for credit losses	**$ 162,348**	**$ 381,076**	**$ 22,132**	**$ 20,827**	**$ 50,603**	**$ 636,986**	**$ 241,145**	**$ 395,587**	**$ 254**	**$ 636,986**

As at October 31, 2020	Remaining term to maturity						Rate sensitivity			
($ millions)	Within one year	One to five years	Five to ten years	Over ten years	No specific maturity	Total	Floating	Fixed rate	Non-rate sensitive	Total
Residential mortgages	$ 44,076	$ 207,998	$ 13,216	$ 16,796	$ 2,598	$ 284,684	$ 51,462	$ 230,590	$ 2,632	$ 284,684
Personal loans	15,307	34,190	4,406	873	38,982	93,758	42,284	49,088	2,386	93,758
Credit cards	–	–	–	–	14,797	14,797	–	14,797	–	14,797
Business and government	107,393	98,383	4,854	1,969	5,064	217,663	143,895	71,187	2,581	217,663
Total	$ 166,776	$ 340,571	$ 22,476	$ 19,638	$ 61,441	$ 610,902	$ 237,641	$ 365,662	$ 7,599	$ 610,902
Allowance for credit losses	–	–	–	–	(7,639)	(7,639)	–	–	(7,639)	(7,639)
Total loans net of allowance for credit losses	$ 166,776	$ 340,571	$ 22,476	$ 19,638	$ 53,802	$ 603,263	$ 237,641	$ 365,662	$ (40)	$ 603,263

(d) Impaired loans[1][2]

	2021			2020		
As at October 31 ($ millions)	Gross impaired loans[1]	Allowance for credit losses	Net	Gross impaired loans[1]	Allowance for credit losses	Net
Residential mortgages	**$ 1,331**	**$ 374**	**$ 957**	$ 1,490	$ 392	$ 1,098
Personal loans	**833**	**626**	**207**	1,032	820	212
Credit cards	**–**	**–**	**–**	–	–	–
Business and government	**2,292**	**655**	**1,637**	2,531	745	1,786
Total	**$ 4,456**	**$ 1,655**	**$ 2,801**	$ 5,053	$ 1,957	$ 3,096
By geography:						
Canada	**$ 1,090**	**446**	**644**	$ 1,127	487	640
United States	**24**	**4**	**20**	116	4	112
Mexico	**758**	**269**	**489**	570	222	348
Peru	**699**	**350**	**349**	824	498	326
Chile	**512**	**180**	**332**	775	233	542
Colombia	**418**	**88**	**330**	459	102	357
Other International	**955**	**318**	**637**	1,182	411	771
Total	**$ 4,456**	**1,655**	**2,801**	$ 5,053	1,957	3,096

(1) Interest income recognized on impaired loans during the year ended October 31, 2021 was $53 (2020 – $47).
(2) Additional interest income of approximately $270 would have been recorded if the above loans had not been classified as impaired (2020 – $310).

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(e) Allowance for credit losses

(i) Key inputs and assumptions

The Bank's allowance for credit losses is measured using a three-stage approach based on the extent of credit deterioration since origination. The calculation of the Bank's allowance for credit losses is an output of complex models with a number of underlying assumptions regarding the choice of variable inputs and their interdependencies. Some of the key drivers include the following:

- Changes in risk ratings of the borrower or instrument reflecting changes in their credit quality;
- Changes in the volumes of transactions;
- Changes in the forward-looking macroeconomic environment reflected in the variables used in the models such as GDP growth, unemployment rates, commodity prices, and house price indices, which are most closely related with credit losses in the relevant portfolio;
- Changes in macroeconomic scenarios and the probability weights assigned to each scenario; and
- Borrower migration between the three stages

The Bank determines its allowance for credit losses using four probability-weighted forward-looking scenarios (base case, optimistic, pessimistic and pessimistic front loaded). The Bank considers both internal and external sources of information and data to achieve unbiased projections and forecasts in determining the allowance for credit losses. The Bank prepares the scenarios using forecasts generated by Scotiabank Economics (SE). The forecasts are generated using models whose outputs are modified by SE as necessary to formulate a 'base case' view of the most probable future direction of economic developments. The development of the baseline and alternative scenarios is overseen by a governance committee that consists of internal stakeholders from across the Bank. The final baseline and alternative scenarios reflect significant review and oversight, and incorporate judgment both in the determination of the scenarios' forecasts and the probability weights that are assigned to them.

(ii) Key macroeconomic variables

The inputs and models used for calculating expected credit losses may not always capture all characteristics of the market at the date of the financial statements. Qualitative adjustments or overlays may be made for certain portfolios or geographies as temporary adjustments in circumstances where, in the Bank's view, the inputs, assumptions, and/or modelling techniques do not capture all relevant risk factors including the emergence of economic or political events.

The Bank has applied expert credit judgement in the assessment of underlying credit deterioration and migration of balances to progressive stages. The Bank considered both quantitative and qualitative information in the assessment of significant increase in credit risk.

The Bank's models are calibrated to consider past performance and macroeconomic forward-looking variables as inputs. The Bank has generated a forward-looking base case scenario and three alternate forward-looking scenarios. In these scenarios the Bank considered recovery time periods ranging from more immediate (V shape), mid-term (W shape) to longer-term (L shape) periods.

While the base case scenario shows continued strong growth economy-wide, growth and employment in individual industries is expected to show considerable heterogeneity, many industries either have already fully recovered or are expected to fully recover to the pre-pandemic level over the course of the next few quarters. In contrast, the activity in a few sectors is expected to remain below the pre-pandemic levels for some time despite strong growth. This industry-level pattern is referred to as a K-shaped recovery, and while not explicitly simulated in the base case scenario, it is incorporated through the consideration of significant increase in risk through expert credit judgement.

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The following table shows certain key macroeconomic variables used to estimate the allowance for credit losses. For the base case, optimistic and pessimistic scenarios, the projections are provided for the next 12 months and for the remaining forecast period, which represents a medium-term view.

October 31, 2021	Base Case Scenario		Alternative Scenario – Optimistic		Alternative Scenario – Pessimistic		Alternative Scenario – Pessimistic Front Loaded(1)	
	Next 12 Months	Remaining Forecast Period	Next 12 Months	Remaining Forecast Period	Next 12 Months	Remaining Forecast Period	Next 12 Months	Remaining Forecast Period
Canada								
Real GDP growth, y/y % change	**3.4**	**1.9**	**5.3**	**2.8**	**-1.3**	**3.1**	**-7.4**	**4.3**
Unemployment rate, average %	**6.3**	**5.7**	**5.6**	**4.1**	**8.8**	**6.3**	**11.7**	**8.2**
Bank of Canada overnight rate target, average %	**0.3**	**2.0**	**0.9**	**3.6**	**0.3**	**1.2**	**0.3**	**0.5**
HPI – Housing Price Index, y/y % change	**11.1**	**2.1**	**13.2**	**3.9**	**3.9**	**3.3**	**-2.7**	**3.9**
USDCAD exchange rate, average	**1.24**	**1.21**	**1.23**	**1.20**	**1.28**	**1.21**	**1.30**	**1.24**
US								
Real GDP growth, y/y % change	**5.7**	**1.6**	**7.3**	**2.1**	**2.4**	**2.4**	**-1.4**	**3.5**
Unemployment rate, average %	**3.8**	**3.5**	**3.4**	**3.2**	**5.6**	**4.1**	**6.8**	**5.6**
Mexico								
Real GDP growth, y/y % change	**2.8**	**1.9**	**4.3**	**2.7**	**-0.4**	**2.7**	**-4.2**	**3.8**
Unemployment rate, average %	**4.0**	**4.0**	**3.6**	**3.1**	**6.5**	**4.5**	**9.4**	**6.4**
Chile								
Real GDP growth, y/y % change	**6.7**	**2.2**	**8.8**	**3.1**	**3.4**	**3.1**	**-0.5**	**4.2**
Unemployment rate, average %	**6.5**	**6.2**	**5.9**	**5.6**	**9.0**	**6.7**	**12.0**	**8.6**
Peru								
Real GDP growth, y/y % change	**5.0**	**3.2**	**7.7**	**4.3**	**3.6**	**3.7**	**0.0**	**4.7**
Unemployment rate, average %	**8.8**	**7.5**	**6.0**	**3.4**	**10.8**	**8.1**	**13.8**	**10.0**
Colombia								
Real GDP growth, y/y % change	**5.0**	**3.5**	**6.8**	**4.8**	**3.6**	**4.0**	**0.0**	**5.0**
Unemployment rate, average %	**13.7**	**11.2**	**12.0**	**8.2**	**15.6**	**11.8**	**18.6**	**13.7**
Caribbean								
Real GDP growth, y/y % change	**4.9**	**4.1**	**6.2**	**4.9**	**3.9**	**4.6**	**0.3**	**5.6**
Global								
WTI oil price, average USD/bbl	**69**	**70**	**75**	**86**	**61**	**67**	**57**	**57**
Copper price, average USD/lb	**4.20**	**4.20**	**4.36**	**4.78**	**3.93**	**4.05**	**3.81**	**3.62**
Global GDP, y/y % change	**5.07**	**3.02**	**6.54**	**3.90**	**2.44**	**3.68**	**-0.69**	**4.48**

(1) Allowance for credit losses as of October 31, 2019, were determined using three probability-weighted scenarios (base case, optimistic and pessimistic). Starting Q1, 2020, the Bank added an additional pessimistic front loaded scenario to its measurement methodology.

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October 31, 2020	Base Case Scenario		Alternative Scenario – Optimistic		Alternative Scenario – Pessimistic		Alternative Scenario – Pessimistic Front Loaded(1)	
	Next 12 Months	Remaining Forecast Period	Next 12 Months	Remaining Forecast Period	Next 12 Months	Remaining Forecast Period	Next 12 Months	Remaining Forecast Period
Canada								
Real GDP growth, y/y % change	3.1	2.2	4.7	2.7	-2.0	3.8	-10.8	6.4
Unemployment rate, average %	7.3	5.5	6.7	4.7	9.9	5.8	14.1	7.1
Bank of Canada overnight rate target, average %	0.3	0.8	0.5	1.2	0.3	0.4	0.3	0.3
HPI – Housing Price Index, y/y % change	0.4	2.8	1.9	3.3	-6.3	4.6	-15.2	6.8
USDCAD exchange rate, average	1.30	1.25	1.30	1.25	1.37	1.27	1.40	1.33
US								
Real GDP growth, y/y % change	2.5	2.2	3.6	2.4	-0.5	3.1	-7.4	5.2
Unemployment rate, average %	6.3	3.5	6.1	3.3	8.1	4.1	10.5	7.0
Mexico								
Real GDP growth, y/y % change	1.0	2.3	2.5	2.6	-1.8	3.1	-8.7	5.3
Unemployment rate, average %	7.3	4.5	6.8	3.9	9.9	4.9	14.1	6.2
Chile								
Real GDP growth, y/y % change	3.8	2.6	5.6	3.2	0.8	3.4	-6.2	5.6
Unemployment rate, average %	12.1	7.3	11.6	6.9	14.7	7.7	18.9	8.9
Peru								
Real GDP growth, y/y % change	3.7	3.8	5.0	4.4	2.9	4.4	-3.5	6.3
Unemployment rate, average %	12.4	8.1	11.3	6.3	14.2	8.5	18.5	9.7
Colombia								
Real GDP growth, y/y % change	1.9	3.5	3.0	4.0	1.1	4.0	-5.2	6.0
Unemployment rate, average %	14.4	8.2	13.6	6.8	16.2	8.7	20.5	9.8
Caribbean								
Real GDP growth, y/y % change	2.2	4.1	3.3	4.4	1.0	4.7	-6.6	5.9
Global								
WTI oil price, average USD/bbl	48	58	52	68	42	54	37	38
Copper price, average USD/lb	3.00	3.19	3.09	3.42	2.79	3.06	2.66	2.64
Global GDP, y/y % change	4.44	3.28	5.63	3.72	2.36	3.91	-2.67	5.34

(1) Allowance for credit losses as of October 31, 2019, were determined using three probability-weighted scenarios (base case, optimistic and pessimistic). Starting Q1, 2020, the Bank added an additional pessimistic front loaded scenario to its measurement methodology.

(iii) Sensitivity

The weighting of these multiple scenarios increased our reported allowance for credit losses for financial assets in Stage 1 and Stage 2, relative to our base case scenario, to $4,076 million (2020 – $5,863 million) from $3,998 million (2020 – $5,407 million). If we were to only use our pessimistic front loaded scenario for the measurement of allowance for credit losses for such assets, our allowance for credit losses on performing financial instruments would be $866 million higher than the reported allowance for credit losses as at October 31, 2021 (2020 – $1,944 million). Actual results will differ as this does not consider the migration of exposures or incorporate changes that would occur in the portfolio due to risk mitigation actions and other factors.

Under our current probability-weighted scenarios, if all of our performing financial assets were in Stage 1, reflecting a 12 month expected loss period, the allowance for credit losses would be $407 million (2020 – $495 million) lower than the reported allowance for credit losses on performing financial assets.

(iv) Allowance for credit losses

($ millions)	Balance as at November 1, 2020	Provision for credit losses	Net write-offs	Other, including foreign currency adjustment	Balance as at October 31, 2021
Residential mortgages	$ 884	$ 91	$ (84)	$ (89)	$ 802
Personal loans	3,155	928	(1,559)	(183)	2,341
Credit cards	1,886	772	(1,340)	(107)	1,211
Business and government	1,892	17	(375)	(160)	1,374
	$ 7,817	$ 1,808	$ (3,358)	$ (539)	$ 5,728
Presented as:					
Allowance for credit losses on loans	$ 7,639				$ 5,626
Allowance for credit losses on acceptances	77				37
Allowance for credit losses on off-balance sheet exposures	101				65

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($ millions)	Balance as at November 1, 2019	Provision for credit losses	Net write-offs	Other, including foreign currency adjustment	Balance as at October 31, 2020
Residential mortgages	$ 680	$ 418	$ (79)	$ (135)	$ 884
Personal loans	2,065	2,632	(1,381)	(161)	3,155
Credit cards	1,255	1,672	(975)	(66)	1,886
Business and government	1,139	1,362	(506)	(103)	1,892
	$ 5,139	$ 6,084	$ (2,941)	$ (465)	$ 7,817
Presented as:					
Allowance for credit losses on loans	$ 5,077				$ 7,639
Allowance for credit losses on acceptances	6				77
Allowance for credit losses on off-balance sheet exposures	56				101

Allowancefor credit losses on loans

As at October 31, 2021 ($ millions)	Stage 1	Stage 2	Stage 3	Total
Residential mortgages	**$ 152**	**$ 276**	**$ 374**	**$ 802**
Personal loans	**644**	**1,071**	**626**	**2,341**
Credit cards	**352**	**859**	**–**	**1,211**
Business and government	**186**	**431**	**655**	**1,272**
Total[1]	**$ 1,334**	**$ 2,637**	**$ 1,655**	**$ 5,626**

(1) Excludes allowance for credit losses for other financial assets including acceptances, investment securities, deposits with banks and off-balance sheet credit risks which amounted to $105.

As at October 31, 2020 ($ millions)	Stage 1	Stage 2	Stage 3	Total
Residential mortgages	$ 190	$ 302	$ 392	$ 884
Personal loans	864	1,471	820	3,155
Credit cards	501	1,385	–	1,886
Business and government	409	560	745	1,714
Total[1]	$ 1,964	$ 3,718	$ 1,957	$ 7,639

(1) Excludes allowance for credit losses for other financial assets including acceptances, investment securities, deposits with banks and off-balance sheet credit risks which amounted to $181.

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The following table presents the changes to the allowance for credit losses on loans

($ millions)	As at October 31, 2021 Stage 1	Stage 2	Stage 3	Total	As at October 31, 2020 Stage 1	Stage 2	Stage 3	Total
Residential mortgages								
Balance at beginning of the year	**$ 190**	**$ 302**	**$ 392**	**$ 884**	$ 126	$ 229	$ 325	$ 680
Provision for credit losses								
Remeasurement[1]	**(143)**	**70**	**149**	**76**	(20)	150	237	367
Newly originated or purchased financial assets	**49**	**–**	**–**	**49**	39	–	–	39
Derecognition of financial assets and maturities	**(10)**	**(24)**	**–**	**(34)**	(4)	(14)	–	(18)
Changes in models and methodologies	**–**	**–**	**–**	**–**	7	6	17	30
Transfer to (from):								
Stage 1	**88**	**(74)**	**(14)**	**–**	111	(90)	(21)	–
Stage 2	**(12)**	**62**	**(50)**	**–**	(18)	101	(83)	–
Stage 3	**–**	**(32)**	**32**	**–**	–	(42)	42	–
Gross write-offs	**–**	**–**	**(111)**	**(111)**	–	–	(97)	(97)
Recoveries	**–**	**–**	**27**	**27**	–	–	18	18
Foreign exchange and other movements[6]	**(10)**	**(28)**	**(51)**	**(89)**	(51)	(38)	(46)	(135)
Balance at end of year[2]	**$ 152**	**$ 276**	**$ 374**	**$ 802**	$ 190	$ 302	$ 392	$ 884
Personal loans								
Balance at beginning of the year	**$ 864**	**$ 1,471**	**$ 820**	**$ 3,155**	$ 609	$ 865	$ 591	$ 2,065
Provision for credit losses								
Remeasurement[1]	**(1,119)**	**1,023**	**984**	**888**	(559)	1,582	1,373	2,396
Newly originated or purchased financial assets	**525**	**–**	**–**	**525**	424	–	–	424
Derecognition of financial assets and maturities	**(171)**	**(314)**	**–**	**(485)**	(92)	(161)	–	(253)
Changes in models and methodologies	**–**	**–**	**–**	**–**	16	33	16	65
Transfer to (from):								
Stage 1	**882**	**(869)**	**(13)**	**–**	832	(821)	(11)	–
Stage 2	**(253)**	**325**	**(72)**	**–**	(282)	358	(76)	–
Stage 3	**(43)**	**(487)**	**530**	**–**	(6)	(343)	349	–
Gross write-offs	**–**	**–**	**(1,833)**	**(1,833)**	–	–	(1,611)	(1,611)
Recoveries	**–**	**–**	**274**	**274**	–	–	230	230
Foreign exchange and other movements[6]	**(41)**	**(78)**	**(64)**	**(183)**	(78)	(42)	(41)	(161)
Balance at end of year[2]	**$ 644**	**$ 1,071**	**$ 626**	**$ 2,341**	$ 864	$1,471	$ 820	$ 3,155
Credit cards								
Balance at beginning of the year	**$ 501**	**$ 1,385**	**$ –**	**$ 1,886**	$ 424	$ 831	$ –	$ 1,255
Provision for credit losses								
Remeasurement[1]	**(452)**	**299**	**972**	**819**	(213)	1,174	661	1,622
Newly originated or purchased financial assets	**117**	**–**	**–**	**117**	155	–	–	155
Derecognition of financial assets and maturities	**(70)**	**(94)**	**–**	**(164)**	(72)	(68)	–	(140)
Changes in models and methodologies	**–**	**–**	**–**	**–**	6	29	–	35
Transfer to (from):								
Stage 1	**382**	**(382)**	**–**	**–**	365	(365)	–	–
Stage 2	**(103)**	**103**	**–**	**–**	(146)	146	–	–
Stage 3	**–**	**(389)**	**389**	**–**	–	(307)	307	–
Gross write-offs	**–**	**–**	**(1,543)**	**(1,543)**	–	–	(1,163)	(1,163)
Recoveries	**–**	**–**	**203**	**203**	–	–	188	188
Foreign exchange and other movements[6]	**(23)**	**(63)**	**(21)**	**(107)**	(18)	(55)	7	(66)
Balance at end of year[2]	**$ 352**	**$ 859**	**$ –**	**$ 1,211**	$ 501	$1,385	$ –	$ 1,886
Business and government								
Balance at beginning of the year	**$ 478**	**$ 592**	**$ 745**	**$ 1,815**	$ 191	$ 263	$ 679	$ 1,133
Provision for credit losses								
Remeasurement[1]	**(262)**	**11**	**402**	**151**	146	467	647	1,260
Newly originated or purchased financial assets	**325**	**–**	**–**	**325**	315	–	–	315
Derecognition of financial assets and maturities	**(320)**	**(72)**	**(11)**	**(403)**	(200)	(72)	(16)	(288)
Changes in models and methodologies	**(4)**	**(11)**	–	**(15)**	11	2	–	13
Transfer to (from):								
Stage 1	**66**	**(66)**	**–**	**–**	48	(48)	–	–
Stage 2	**(53)**	**54**	**(1)**	**–**	(28)	31	(3)	–
Stage 3	**–**	**(9)**	**9**	**–**	(2)	(27)	29	–
Gross write-offs	**–**	**–**	**(414)**	**(414)**	–	–	(534)	(534)
Recoveries	**–**	**–**	**39**	**39**	–	–	28	28
Foreign exchange and other movements	**(18)**	**(29)**	**(114)**	**(161)**	(3)	(24)	(85)	(112)
Balance at end of period including off-balance sheet exposures[2]	**$ 212**	**$ 470**	**$ 655**	**$ 1,337**	$ 478	$ 592	$ 745	$ 1,815
Less: Allowance for credits losses on off-balance sheet exposures[2][3]	**26**	**39**	**–**	**65**	69	32	–	101
Balance at end of year[2]	**$ 186**	**$ 431**	**$ 655**	**$ 1,272**	$ 409	$ 560	$ 745	$ 1,714

(1) Includes credit risk changes as a result of significant increases in credit risk, changes in credit risk that did not result in a transfer between stages, changes in model inputs and assumptions and changes due to drawdowns of undrawn commitments.
(2) Interest income on impaired loans for residential mortgages, personal loans, credit cards, and business and government loans totaled $270 (2020 – $310).
(3) Allowance for credit losses on off-balance sheet exposures is recorded in other liabilities in the Consolidated Statement of Financial Position
(4) Allowance for credit losses on acceptances are recorded against the financial asset in the Consolidated Statement of Financial Position.
(5) During the year ended October 31, 2021, the contractual terms of certain financial assets were modified where the modification did not result in derecognition. The carrying value of such loans that were modified in Stage 2 and Stage 3 was $1,505 and $854 respectively, before the modification.
(6) Divestitures are included in the foreign exchange and other movements.

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(f) Carrying value of exposures by risk rating

Residential mortgages Category of PD grades ($ millions)	As at October 31, 2021				As at October 31, 2020			
	Stage 1	Stage 2	Stage 3[1]	Total	Stage 1	Stage 2	Stage 3[1]	Total
Very low	$ 187,163	$ 5,610	$ –	$ 192,773	$ 167,233	$ 1,892	$ –	$ 169,125
Low	69,306	1,768	–	71,074	61,988	1,495	–	63,483
Medium	9,170	3,690	–	12,860	10,914	2,071	–	12,985
High	904	2,284	–	3,188	1,197	3,435	–	4,632
Very high	16	643	–	659	13	596	–	609
Loans not graded[2]	34,122	3,671	–	37,793	28,787	3,573	–	32,360
Default	–	–	1,331	1,331	–	–	1,490	1,490
Total	300,681	17,666	1,331	319,678	270,132	13,062	1,490	284,684
Allowance for credit losses	152	276	374	802	190	302	392	884
Carrying value	$ 300,529	$ 17,390	$ 957	$ 318,876	$ 269,942	$ 12,760	$ 1,098	$ 283,800

(1) Stage 3 includes purchased or originated credit impaired loans.
(2) Portfolios where the customer account level 'Probability of Default' has not been determined have been included in the 'Loans not graded' category.

Personal loans Category of PD grades ($ millions)	As at October 31, 2021				As at October 31, 2020			
	Stage 1	Stage 2	Stage 3[1]	Total	Stage 1	Stage 2	Stage 3[1]	Total
Very low	$ 30,085	$ 168	$ –	$ 30,253	$ 29,557	$ 499	$ –	$ 30,056
Low	25,719	574	–	26,293	25,508	1,793	–	27,301
Medium	8,290	1,127	–	9,417	6,619	2,779	–	9,398
High	5,686	2,307	–	7,993	5,809	2,964	–	8,773
Very high	82	1,157	–	1,239	318	1,367	–	1,685
Loans not graded[2]	14,159	1,353	–	15,512	13,629	1,884	–	15,513
Default	–	–	833	833	–	–	1,032	1,032
Total	84,021	6,686	833	91,540	81,440	11,286	1,032	93,758
Allowance for credit losses	644	1,071	626	2,341	864	1,471	820	3,155
Carrying value	$ 83,377	$ 5,615	$ 207	$ 89,199	$ 80,576	$ 9,815	$ 212	$ 90,603

(1) Stage 3 includes purchased or originated credit impaired loans.
(2) Portfolios where the customer account level 'Probability of Default' has not been determined have been included in the 'Loans not graded' category.

Credit cards Category of PD grades ($ millions)	As at October 31, 2021				As at October 31, 2020			
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
Very low	$ 1,517	$ 76	$ –	$ 1,593	$ 1,318	$ 20	$ –	$ 1,338
Low	2,288	135	–	2,423	1,971	184	–	2,155
Medium	2,666	166	–	2,832	2,416	393	–	2,809
High	2,237	1,225	–	3,462	2,229	1,799	–	4,028
Very high	21	509	–	530	41	843	–	884
Loans not graded[1]	1,158	452	–	1,610	2,414	1,169	–	3,583
Default	–	–	–	–	–	–	–	–
Total	9,887	2,563	–	12,450	10,389	4,408	–	14,797
Allowance for credit losses	352	859	–	1,211	501	1,385	–	1,886
Carrying value	$ 9,535	$ 1,704	$ –	$ 11,239	$ 9,888	$ 3,023	$ –	$ 12,911

(1) Portfolios where the customer account level 'Probability of Default' has not been determined have been included in the 'Loans not graded' category.

Undrawn loan commitments – Retail Category of PD grades ($ millions)	As at October 31, 2021				As at October 31, 2020			
	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
Very low	$ 88,308	$ 14	$ –	$ 88,322	$ 85,242	$ 6	$ –	$ 85,248
Low	17,880	12	–	17,892	16,775	39	–	16,814
Medium	6,858	36	–	6,894	5,739	123	–	5,862
High	3,103	745	–	3,848	2,201	705	–	2,906
Very high	24	212	–	236	3	134	–	137
Loans not graded[1]	9,126	2,204	–	11,330	11,113	4,501	–	15,614
Default	–	–	–	–	–	–	–	–
Carrying value	$ 125,299	$ 3,223	$ –	$ 128,522	$ 121,073	$ 5,508	$ –	$ 126,581

(1) Portfolios where the customer account level 'Probability of Default' has not been determined have been included in the 'Loans not graded' category.

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Total retail loans

Category of PD grades ($ millions)	As at October 31, 2021 Stage 1	Stage 2	Stage 3(1)	Total	As at October 31, 2020 Stage 1	Stage 2	Stage 3(1)	Total
Very low	$ 307,073	$ 5,868	$ –	$ 312,941	$ 283,350	$ 2,417	$ –	$ 285,767
Low	115,193	2,489	–	117,682	106,242	3,511	–	109,753
Medium	26,984	5,019	–	32,003	25,688	5,366	–	31,054
High	11,930	6,561	–	18,491	11,436	8,903	–	20,339
Very high	143	2,521	–	2,664	375	2,940	–	3,315
Loans not graded(2)	58,565	7,680	–	66,245	55,943	11,127	–	67,070
Default	–	–	2,164	2,164	–	–	2,522	2,522
Total	519,888	30,138	2,164	552,190	483,034	34,264	2,522	519,820
Allowance for credit losses	1,148	2,206	1,000	4,354	1,555	3,158	1,212	5,925
Carrying value	$ 518,740	$ 27,932	$ 1,164	$ 547,836	$ 481,479	$ 31,106	$ 1,310	$ 513,895

(1) Stage 3 includes purchased or originated credit impaired loans.
(2) Portfolios where the customer account level 'Probability of Default' has not been determined have been included in the 'Loans not graded' category.

Business and government loans

Category of PD grades ($ millions)	As at October 31, 2021 Stage 1	Stage 2	Stage 3(1)	Total	As at October 31, 2020 Stage 1	Stage 2	Stage 3(1)	Total
Investment grade	$ 110,786	$ 892	$ –	$ 111,678	$ 105,757	$ 1,290	$ –	$ 107,047
Non-Investment grade	91,945	7,570	–	99,515	93,998	8,840	–	102,838
Watch list	31	3,266	–	3,297	47	3,101	–	3,148
Loans not graded(2)	2,151	11	–	2,162	2,063	36	–	2,099
Default	–	–	2,292	2,292	–	–	2,531	2,531
Total	204,913	11,739	2,292	218,944	201,865	13,267	2,531	217,663
Allowance for credit losses	186	431	655	1,272	409	560	745	1,714
Carrying value	$ 204,727	$ 11,308	$ 1,637	$ 217,672	$ 201,456	$ 12,707	$ 1,786	$ 215,949

(1) Stage 3 includes purchased or originated credit impaired loans.
(2) Portfolios where the customer account level 'Probability of Default' has not been determined have been included in the 'Loans not graded' category.

Undrawn loan commitments – Business and government

Category of PD grades ($ millions)	As at October 31, 2021 Stage 1	Stage 2	Stage 3(1)	Total	As at October 31, 2020 Stage 1	Stage 2	Stage 3(1)	Total
Investment grade	$ 186,056	$ 1,266	$ –	$ 187,322	$ 182,580	$ 1,280	$ –	$ 183,860
Non-investment grade	66,009	3,786	–	69,795	59,600	4,336	–	63,936
Watch list	12	2,160	–	2,172	6	1,704	–	1,710
Loans not graded(2)	4,155	–	–	4,155	3,702	309	–	4,011
Default	–	–	102	102	–	–	161	161
Total	256,232	7,212	102	263,546	245,888	7,629	161	253,678
Allowance for credit losses	26	39	–	65	69	32	–	101
Carrying value	$ 256,206	$ 7,173	$ 102	$ 263,481	$ 245,819	$ 7,597	$ 161	$ 253,577

(1) Stage 3 includes purchased or originated credit impaired loans.
(2) Portfolios where the customer account level 'Probability of Default' has not been determined have been included in the 'Loans not graded' category.

Total non-retail loans

Category of PD grades ($ millions)	As at October 31, 2021 Stage 1	Stage 2	Stage 3(1)	Total	As at October 31, 2020 Stage 1	Stage 2	Stage 3(1)	Total
Investment grade	$ 296,842	$ 2,158	$ –	$ 299,000	$ 288,337	$ 2,570	$ –	$ 290,907
Non-investment grade	157,954	11,356	–	169,310	153,598	13,176	–	166,774
Watch list	43	5,426	–	5,469	53	4,805	–	4,858
Loans not graded(2)	6,306	11	–	6,317	5,765	345	–	6,110
Default	–	–	2,394	2,394	–	–	2,692	2,692
Total	461,145	18,951	2,394	482,490	447,753	20,896	2,692	471,341
Allowance for credit losses	212	470	655	1,337	478	592	745	1,815
Carrying value	$ 460,933	$ 18,481	$ 1,739	$ 481,153	$ 447,275	$ 20,304	$ 1,947	$ 469,526

(1) Stage 3 includes purchased or originated credit impaired loans.
(2) Portfolios where the customer account level 'Probability of Default' has not been determined have been included in the 'Loans not graded' category.

(g) Loans past due but not impaired[1]

A loan is considered past due when a counterparty has not made a payment by the contractual due date. The following table presents the carrying value of loans that are contractually past due but not classified as impaired because they are either less than 90 days past due or fully secured and collection efforts are reasonably expected to result in repayment, or restoring it to a current status in accordance with the Bank's policy. In cases where borrowers have opted to participate in payment deferral programs as a result of COVID-19, deferral of payments is not considered past due and such loans are not aged further during the deferral period.

	2021[2]				2020[2]			
As at October 31 ($ millions)	31 – 60 days	61 – 90 days	91 days and greater[3]	Total	31 – 60 days	61 – 90 days	91 days and greater[3]	Total
Residential mortgages	**$ 732**	**$ 327**	**$ –**	**$ 1,059**	$ 663	$ 282	$ –	$ 945
Personal loans	**411**	**210**	**–**	**621**	604	273	–	877
Credit cards	**125**	**83**	**201**	**409**	401	166	277	844
Business and government	**124**	**24**	**–**	**148**	288	103	–	391
Total	**$ 1,392**	**$ 644**	**$ 201**	**$ 2,237**	$ 1,956	$ 824	$ 277	$ 3,057

(1) Loans past due 30 days or less are not presented in this analysis as they are not administratively considered past due.
(2) For loans where payment deferrals were granted, deferred payments are not considered past due and such loans are not aged further during the deferral period. Regular ageing of the loans resumes, after the end of the deferral period.
(3) All loans that are over 90 days past due are considered impaired with the exception of credit card receivables which are considered impaired when 180 days past due.

(h) Purchased credit-impaired loans

Certain financial assets including loans are credit-impaired on initial recognition either through acquisition or origination. The following table provides details of such assets:

As at October 31 ($ millions)	2021	2020
Unpaid principal balance[1]	**$ 303**	$ 393
Credit related fair value adjustments	**(68)**	(93)
Carrying value	**235**	300
Stage 3 allowance	**(1)**	(10)
Carrying value net of related allowance	**$ 234**	$ 290

(1) Represents principal amount owed net of write-offs.

14 Derecognition of Financial Assets

Securitization of residential mortgage loans

The Bank securitizes fully insured residential mortgage loans, Bank originated and others, through the creation of mortgage-backed securities (MBS) under the National Housing Act (NHA) MBS program, sponsored by Canada Mortgage and Housing Corporation (CMHC). MBS created under the program are sold to Canada Housing Trust (the Trust), a government sponsored entity, under the Canada Mortgage Bond (CMB) program, and/or third-party investors. The Trust issues securities to third-party investors. The CMHC also purchased insured mortgage pools from the Bank under the Insured Mortgage Purchase Program (IMPP).

The sale of mortgages under the above programs does not meet the derecognition requirements, where the Bank retains the pre-payment and interest rate risk associated with the mortgages, which represent substantially all the risks and rewards associated with the transferred assets.

The transferred mortgages continue to be recognized on the Consolidated Statement of Financial Position as residential mortgage loans. Cash proceeds from the transfer are treated as secured borrowings and included in Deposits – Business and government on the Consolidated Statement of Financial Position.

The following table provides the carrying amount of transferred assets that do not qualify for derecognition and the associated liabilities:

As at October 31 ($ millions)	2021[1]	2020[1]
Assets		
Carrying value of residential mortgage loans	**$ 17,145**	$ 20,586
Other related assets[2]	**9,787**	9,548
Liabilities		
Carrying value of associated liabilities	**25,833**	27,819

(1) The fair value of the transferred assets is $25,761 (2020 – $29,415) and the fair value of the associated liabilities is $26,021 (2020—$28,920), for a net position of $(260) (2020—$495).
(2) These include cash held in trust and trust permitted investment assets, including repurchase style transactions of mortgage-backed securities, acquired as part of principal reinvestment account that the Bank is required to maintain in order to participate in the programs.

Securitization of personal lines of credit, credit cards and auto loans

The Bank securitizes a portion of its credit card and auto loan receivables through consolidated structured entities. These receivables continue to be recognized on the Consolidated Statement of Financial Position as personal loans and credit card loans. For further details, refer to Note 15.

Securities sold under repurchase agreements and securities lent

The Bank enters into transactions, such as repurchase agreements and securities lending agreements, where the Bank transfers assets under agreements to repurchase them on a future date and retains all the substantial risks and rewards associated with the assets. The transferred assets remain on the Consolidated Statement of Financial Position.

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The following table provides the carrying amount of the transferred assets and the associated liabilities:

As at October 31 ($ millions)	2021(1)	2020(1)
Carrying value of assets associated with:		
Repurchase agreements(2)	**$ 100,083**	$ 121,918
Securities lending agreements	**59,506**	53,082
Total	**159,589**	175,000
Carrying value of associated liabilities(3)	**$ 123,469**	$ 137,763

(1) The fair value of transferred assets is $159,589 (2020 – $175,000) and the fair value of the associated liabilities is $123,469 (2020 – $137,763), for a net position of $36,120 (2020 – $37,237).
(2) Does not include over-collateralization of assets pledged.
(3) Liabilities for securities lending arrangements only include amounts related to cash collateral received. In most cases, securities are received as collateral.

Continuing involvement in transferred financial assets that qualify for derecognition
Loans issued by the Bank under the Canada Emergency Business Account (CEBA) program are derecognized from the Consolidated Statement of Financial Position as the program meets the pass-through criteria for derecognition of financial assets under IFRS 9.

As at October 31, 2021, the Bank has derecognized $4.3 billion of CEBA loans (October 31, 2020 – $3.0 billion). The Bank retains a continuing involvement in these derecognized loans through its servicing of these loans on behalf of EDC. The appropriate level of administration fees for servicing the loans has been recognized.

15 Structured Entities

(a) Consolidated structured entities

U.S. multi-seller conduit
The Bank-sponsored U.S. multi-seller conduit purchases high-quality financial assets from independent third parties (the sellers) funded by the issuance of highly rated asset-backed commercial paper. The sellers continue to service the financial assets and provide credit enhancements through over-collateralization protection and cash reserves.

Each asset purchased by the conduit has a deal-specific liquidity facility provided by the Bank in the form of a Liquidity Asset Purchase Agreement (LAPA). The primary purpose of the backstop liquidity facility is to provide an alternative source of financing in the event the conduit is unable to access the asset-backed commercial paper market. The administration agent can require the Bank in its capacity as liquidity provider to perform under its asset-specific LAPA agreements, in which case the Bank is obliged to purchase an interest in the related assets owned by the conduit. The Bank is not obligated to perform under the LAPA agreements in the event the conduit itself is insolvent.

The Bank's liquidity agreements with the conduit call for the Bank to fund full par value of the assets, including defaulted assets, if any, of the conduit. This facility is available to absorb the losses on defaulted assets, if any, in excess of losses absorbed by deal-specific seller credit enhancements. Further, the Bank holds the subordinated note issued by the conduit.

The Bank's exposure from the U.S. conduit through the LAPA, including the obligation to purchase defaulted assets and investment in the conduit's subordinated note, give the Bank the obligation to absorb losses that could potentially be significant to the conduit, which in conjunction with power to direct the conduit's activities, result in the Bank consolidating the U.S. multi-seller conduit.

The conduit's assets are primarily included in business and government loans on the Bank's Consolidated Statement of Financial Position.

There are contractual restrictions on the ability of the Bank's consolidated U.S. multi-seller conduit to transfer funds to the Bank. The Bank is restricted from accessing the conduit's assets under the relevant arrangements. The Bank has no rights to the assets owned by the conduit. In the normal course of business, the assets of the conduit can only be used to settle the obligations of the conduit.

Bank funding vehicles and capital vehicles
The Bank uses funding and capital vehicles to facilitate cost-efficient financing of its own operations, including the issuance of covered bonds and notes. Funding vehicles include Scotiabank Covered Bond Guarantor Limited Partnership, Trillium Credit Card Trust II, and Securitized Term Auto Receivables Trust 2018-2, 2019-1 and 2019-CRT. Activities of these funding structured entities are generally limited to holding an interest in a pool of assets or receivables generated by the Bank. Capital vehicles include Scotiabank LRCN Trust which was established in connection with the Bank's issuance of qualifying regulatory capital instruments. These structured entities are consolidated due to the Bank's decision-making power and ability to use the power to affect the Bank's returns.

Scotiabank Covered Bond Guarantor Limited Partnership
The Bank has a registered covered bond program through which it issues debt that is guaranteed by Scotiabank Covered Bond Guarantor Limited Partnership (the "LP"). Under this program, the LP purchases uninsured residential mortgages from the Bank, which it acquires with funding provided by the Bank.

As at October 31, 2021, $31.3 billion (2020 – $30.5 billion) covered bonds were outstanding and included in Deposits – Business and government on the Consolidated Statement of Financial Position. The increase in covered bonds is as a result of new issuances that have taken place throughout the year. The Bank's outstanding covered bonds are denominated in U.S. dollars, Australian dollars, British pounds, Swiss francs and Euros. As at October 31, 2021, assets pledged in relation to these covered bonds were uninsured residential mortgages denominated in Canadian dollars of $34.7 billion (2020 – $31.5 billion). These figures exclude activities in connection with Canadian dollar-denominated covered bonds held by the Bank and eliminated upon consolidation, or transferred to the Bank of Canada as part of its term repo program and included in Obligations related to securities sold under repurchase agreements and securities lent on the Consolidated Statement of Financial Position.

Credit card receivables securitization trust
The Bank securitizes a portion of its Canadian credit card receivables (receivables) through Trillium Credit Card Trust II (Trillium), a Bank-sponsored structured entity. Trillium issues senior and subordinated notes to third-party investors. The proceeds of such issuance are used to purchase co-ownership interests in receivables originated by the Bank. Recourse of the note holders is limited to the purchased interest.

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The Bank is responsible for servicing the transferred receivables as well as performing administrative functions for Trillium. As at October 31, 2021, US$1.3 billion ($1.5 billion Canadian dollars) (2020 – US$1.7 billion, $2.3 billion Canadian dollars) Class A notes; and US$109 million ($135 million Canadian dollars) (2020 – US$148 million, $197 million Canadian dollars) subordinated Class B and Class C notes were outstanding and included in Deposits – Business and government on the Consolidated Statement of Financial Position. As at October 31, 2021 assets pledged in relation to these notes were credit card receivables, denominated in Canadian dollars, of $1.8 billion (2020 – $2.6 billion).

Auto loan receivables securitization trusts

The Bank securitizes a portion of its Canadian auto loan receivables (receivables) through Securitized Term Auto Receivables Trust (START entities) 2018-2, 2019-1 and 2019-CRT. Each entity is a Bank-sponsored structured entity. The START entities issue senior and subordinated notes to the Bank and/or third-party investors, and the proceeds of such issuances are used to purchase discrete pools of retail indirect auto loan receivables from the Bank. Recourse of the note holders is limited to the receivables.

The Bank is responsible for servicing the transferred receivables as well as performing administrative functions for the START entities. As at October 31, 2021, the aggregate senior and subordinated notes issued to third parties outstanding and included in Deposits – Business and government on the Consolidated Statement of Financial Position were US$0.2 billion ($0.3 billion Canadian dollars) (2020 – US$0.7 billion, $0.9 billion Canadian dollars). As at October 31, 2021, assets pledged in relation to these notes were Canadian auto loan receivables denominated in Canadian dollars of $0.8 billion (2020 – $2 billion).

Scotiabank LRCN Trust

During the year, the Bank established Scotiabank LRCN Trust (the Trust) in connection with the issuance of $1,250 million 3.70% Fixed Rate Resetting Limited Recourse Capital Notes Series 1 (NVCC) (“LRCN Series 1”) and US$600 million 3.625% Fixed Rate Resetting Limited Recourse Capital Notes Series 2 (NVCC) (“LRCN Series 2”). The Trust separately holds $1,250 million of 3.70% Fixed Rate Resetting Perpetual Subordinated Additional Tier 1 Capital Notes (NVCC) (“the Series 1 AT1 Notes”) issued concurrently with the LRCN Series 1 and US$600 million of 3.625% Fixed Rate Resetting Perpetual Subordinated Additional Tier 1 Capital Notes (NVCC) (“the Series 2 AT1 Notes”) issued concurrently with the LRCN Series 2. Refer to Note 24(b) – Preferred shares and other equity instruments for further information.

Other

Assets of other consolidated structured entities are comprised of securities, deposits with banks and other assets to meet the Bank’s and customer needs.

(b) Unconsolidated structured entities

The following table provides information about other structured entities in which the Bank has a significant interest but does not control and therefore does not consolidate. A significant interest is generally considered to exist where the Bank is exposed to 10% or more of the unconsolidated structured entities’ maximum exposure to loss.

	As at October 31, 2021			
($ millions)	Canadian multi-seller conduits that the Bank administers	Structured finance entities	Capital funding vehicles	Total
Total assets on structured entity’s financial statements	**$ 3,519**	**$ 2,403**	**$ 833**	**$ 6,755**
Assets recognized on the Bank’s financial statements				
Trading assets	**7**	**2**	**–**	**9**
Investment securities	**–**	**1,124**	**10**	**1,134**
Loans[1]	**–**	**639**	**59**	**698**
	7	**1,765**	**69**	**1,841**
Liabilities recognized on the Bank’s financial statements				
Deposits – Business and government	**–**	**–**	**833**	**833**
	–	**–**	**833**	**833**
Bank’s maximum exposure to loss	**$ 3,526**	**$ 1,765**	**$ 69**	**$ 5,360**

	As at October 31, 2020			
($ millions)	Canadian multi-seller conduits that the Bank administers	Structured finance entities	Capital funding vehicles	Total
Total assets (on structured entity’s financial statements)	$ 3,097	$ 3,106	$ 833	$ 7,036
Assets recognized on the Bank’s financial statements				
Trading assets	1	2	–	3
Investment securities	–	1,192	10	1,202
Loans[1]	–	820	59	879
	1	2,014	69	2,084
Liabilities recognized on the Bank’s financial statements				
Deposits – Business and government	–	–	833	833
	–	–	833	833
Bank’s maximum exposure to loss	$ 3,098	$ 2,014	$ 69	$ 5,181

(1) Loan balances are presented net of allowance for credit losses.

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The Bank's maximum exposure to loss represents the notional amounts of guarantees, liquidity facilities, and other credit support relationships with the structured entities, the credit risk amount for certain derivative contracts with the entities and the amount invested where the Bank holds an ownership interest in the structured entities. Of the aggregate amount of maximum exposure to loss as at October 31, 2021, the Bank has recorded $1.8 billion (2020 – $2.1 billion), primarily its interest in the structured entities, on its Consolidated Statement of Financial Position.

Canadian multi-seller conduits that the Bank administers
The Bank sponsors two Canadian multi-seller conduits. The conduits purchase assets from independent third parties (the sellers) funded by the issuance of asset-backed commercial paper. The sellers continue to service the assets and provide credit enhancements through overcollateralization protection and cash reserves. The Bank has no rights to these assets as they are available to support the obligations of the respective programs, but manages for a fee the commercial paper selling programs. To ensure timely repayment of the commercial paper, each asset pool financed by the multi-seller conduits has a deal-specific LAPA with the Bank. Pursuant to the terms of the LAPA, the Bank as the liquidity provider is obligated to purchase non-defaulted assets, transferred by the conduit at the conduit's original cost as reflected in the table above. In most cases, the liquidity agreements do not require the Bank to purchase defaulted assets. Additionally, the Bank has not provided any program-wide credit enhancement to these conduits. The Bank provides additional liquidity facilities to these multi-seller conduits to a maximum amount of $1.4 billion (2020 – $1.1 billion) based on future asset purchases by these conduits.

Although the Bank has power over the relevant activities of the conduits, it has limited exposure to variability in returns, which results in the Bank not consolidating the two Canadian conduits.

Structured finance entities
The Bank has interests in structured entities used to assist corporate clients in accessing cost-efficient financing through their securitization structures. The Bank may act as an administrator, an investor or a combination of both in these types of structures.

Capital funding vehicles
These entities are designed to pass the Bank's credit risk to the holders of the securities. Therefore, the Bank does not have exposure or rights to variable returns from these unconsolidated entities.

(c) Other unconsolidated Bank-sponsored entities

The Bank sponsors unconsolidated structured entities including mutual funds, in which it has insignificant or no interest at the reporting date. The Bank is a sponsor when it is significantly involved in the design and formation at inception of the structured entities, and the Bank's name is used by the structured entities to create an awareness of the instruments being backed by the Bank's reputation and obligation. The Bank also considers other factors, such as its continuing involvement and obligations to determine if, in substance, the Bank is a sponsor.

The following table provides information on revenue from unconsolidated Bank-sponsored entities.

	Funds	
As at October 31 ($ millions)	2021	2020
Revenue	**$ 2,604**	$ 2,165

16 Property and Equipment

($ millions)	Land & Building	Equipment	Technology Assets	Leasehold Improvements	Right-of-use Assets	Total
Cost						
Balance as at October 31, 2019	$ 1,743	$ 2,154	$ 2,372	$ 1,615	$ –	$ 7,884
Impact of first application of IFRS 16	–	–	–	–	3,620	3,620
Acquisitions	–	4	1	10	–	15
Additions	109	262	117	151	259	898
Disposals	(205)	(407)	(113)	(114)	(93)	(932)
Foreign currency adjustments and other	(28)	(77)	9	(2)	–	(98)
Balance as at October 31, 2020	**$ 1,619**	**$ 1,936**	**$ 2,386**	**$ 1,660**	**$ 3,786**	**$ 11,387**
Acquisitions	**–**	**–**	**–**	**–**	**–**	**–**
Additions	**126**	**111**	**92**	**74**	**456**	**859**
Disposals	**(49)**	**(47)**	**(32)**	**(51)**	**(132)**	**(311)**
Foreign currency adjustments and other	**(127)**	**(94)**	**(36)**	**(34)**	**(107)**	**(398)**
Balance as at October 31, 2021	**$ 1,569**	**$ 1,906**	**$ 2,410**	**$ 1,649**	**$ 4,003**	**$ 11,537**
Accumulated depreciation						
Balance as at October 31, 2019	$ 672	$ 1,631	$ 1,935	$ 977	$ –	$ 5,215
Depreciation	42	111	153	91	400	797
Disposals	(84)	(321)	(71)	(49)	(9)	(534)
Foreign currency adjustments and other	(10)	50	(47)	5	14	12
Balance as at October 31, 2020	**$ 620**	**$ 1,471**	**$ 1,970**	**$ 1,024**	**$ 405**	**$ 5,490**
Depreciation	**42**	**98**	**155**	**95**	**379**	**769**
Disposals	**(30)**	**(32)**	**(31)**	**(37)**	**(35)**	**(165)**
Foreign currency adjustments and other	**(35)**	**(73)**	**(34)**	**(23)**	**(13)**	**(178)**
Balance as at October 31, 2021	**$ 597**	**$ 1,464**	**$ 2,060**	**$ 1,059**	**$ 736**	**$ 5,916**
Net book value						
Balance as at October 31, 2020	$ 999	$ 465	$ 416	$ 636	$ 3,381	$ 5,897[1]
Balance as at October 31, 2021	**$ 972**	**$ 442**	**$ 350**	**$ 590**	**$ 3,267**	**$ 5,621[1]**

(1) Includes $40 (2020 – $43) of investment property.

17 Investments in Associates

The Bank had significant investments in the following associates:

			2021			2020
As at October 31 ($ millions)	Country of incorporation	Nature of business	Ownership percentage	Date of financial statements[1]	Carrying value	Carrying value
Canadian Tire's Financial Services business (CTFS)[2]	**Canada**	**Financial Services**	**20.00%**	**September 30, 2021**	**$ 549**	$ 534
Bank of Xi'an Co. Ltd.[3]	**China**	**Banking**	**17.99%**	**September 30, 2021**	**968**	926
Maduro & Curiel's Bank N.V.[4]	**Curacao**	**Banking**	**48.10%**	**September 30, 2021**	**366**	355

(1) Represents the date of the most recent financial statements. Where available, financial statements prepared by the associates' management or other published information is used to estimate the change in the Bank's interest since the most recent financial statements.
(2) Canadian Tire has an option to sell to the Bank up to an additional 29% equity interest until the end of the 10th anniversary (October 1, 2024) at the then fair value, that can be settled, at the Bank's discretion, by issuance of common shares or cash. After October 1, 2024 for a period of six months, the Bank has the option to sell its equity interest back to Canadian Tire at the then fair value.
(3) Based on the quoted price on the Shanghai Stock Exchange, the Bank's investment in Bank of Xi'an Co. Ltd was $671 as at October 31, 2021 (October 31, 2020 – $818).
(4) The local regulator requires financial institutions to set aside reserves for general banking risks. These reserves are not required under IFRS, and represent undistributed retained earnings related to a foreign associated corporation, which are subject to local regulatory restrictions. As of October 31, 2021 these reserves amounted to $60 (2020 – $64).

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Summarized financial information of the Bank's significant associates are as follows.

($ millions)	For the twelve months ended[1] Revenue	Net income	As at October 31, 2021 Total assets	Total liabilities
Canadian Tire's Financial Services business (CTFS)	**$ 1,098**	**$ 437**	**$ 7,832**	**$ 6,722**
Bank of Xi'an Co. Ltd.	**1,402**	**541**	**65,006**	**59,828**
Maduro & Curiel's Bank N.V.	**304**	**67**	**6,183**	**5,438**

($ millions)	For the twelve months ended[1] Revenue	Net income	As at October 31, 2020 Total assets	Total liabilities
Canadian Tire's Financial Services business (CTFS)	$ 1,183	$ 301	$ 7,035	$ 6,017
Bank of Xi'an Co. Ltd.	1,317	511	60,392	55,459
Maduro & Curiel's Bank N.V.	334	80	6,117	5,396

(1) Based on the most recent available financial statements.

18 Goodwill and Other Intangible Assets

Goodwill

The changes in the carrying amounts of goodwill by cash-generating unit (CGU) are as follows:

($ millions)	Canadian Banking	Global Wealth Management	Global Banking and Markets	Latin America	Caribbean and Central America	Total
Balance as at October 31, 2019	$ 5,093	$ –	$ 260	$ 3,272	$ 1,006	$ 9,631
Reclassification due to reorganization of operating segments	(3,403)	3,628	–	(225)	–	–
Acquisitions	–	–	–	–	–	–
Dispositions[1]	–	–	(21)	(47)	(67)	(135)
Foreign currency adjustments and other	–	(14)	1	(168)	(36)	(217)
Balance as at October 31, 2020	1,690	3,614	240	2,832	903	9,279
Reclassification due to reorganization of operating segments	**–**	**–**	**–**	**–**	**–**	**–**
Acquisitions	**–**	**–**	**–**	**–**	**–**	**–**
Dispositions[1]	**–**	**–**	**–**	**–**	**–**	**–**
Foreign currency adjustments and other	**–**	**(34)**	**(9)**	**(315)**	**(73)**	**(431)**
Balance as at October 31, 2021	**$ 1,690**	**$ 3,580**	**$ 231**	**$ 2,517**	**$ 830**	**$ 8,848**

(1) Includes wind-downs.

Global Wealth Management CGU

Effective November 1, 2019, the Bank established Global Wealth Management as a separate business segment. Wealth Management results previously reported in the Canadian Banking and International Banking business segments are now being reported in the new business segment.

Impairment testing of goodwill

Goodwill acquired in business combinations is allocated to each of the Bank's group of CGUs that are expected to benefit from the synergies of the particular acquisition. Goodwill is assessed for impairment annually or more frequently if events or circumstances occur that may result in the recoverable amount of the CGU falling below its carrying value.

The Bank determines the carrying value of the CGU using a regulatory capital approach based on credit, market, and operational risks, and leverage, consistent with the Bank's capital attribution for business line performance measurement. The recoverable amount is the higher of fair value less costs of disposal and value in use. The recoverable amount for the CGU has been determined using the fair value less costs of disposal method. In arriving at such value for the CGU, the Bank has used price earnings (P/E) multiples applied to normalized net income for the last four quarters as of the test date, a control premium is added based on a five year weighted average acquisition premium paid for comparable companies, and costs of disposal are deducted from the fair value of the CGU. The resulting recoverable amount determined is then compared to its respective carrying amount to identify any impairment. P/E multiples ranging from 10.0 to 12.5 times (2020 – 10.0 to 11.5 times) have been used.

The fair value less costs of disposal of the CGU is sensitive to changes in net income, P/E multiples and control premiums.

Goodwill was assessed for annual impairment as at July 31, 2021 and July 31, 2020 and no impairment was determined to exist. Management believes that reasonable negative changes in any one key assumption used to determine the recoverable amount of the CGU would not result in an impairment. No significant negative changes were noted as of October 31, 2021.

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Intangible assets

Intangible assets consist of assets with indefinite and finite useful lives. Indefinite life intangible assets consist substantially of fund management contracts. The fund management contracts are for the management of open-ended funds. Finite life intangible assets include assets such as computer software, customer relationships and core deposit intangibles.

	Finite life		Indefinite life		
($ millions)	Computer software	Other intangibles	Fund management contracts(1)	Other intangibles	Total
Cost					
Balance as at October 31, 2019	$ 4,525	$ 2,131	$ 4,415	$ 166	$ 11,237
Acquisitions	–	–	–	–	–
Additions	723	2	–	–	725
Disposals	(198)	(59)	–	–	(257)
Foreign currency adjustments and other	(59)	(101)	–	–	(160)
Balance as at October 31, 2020	$ 4,991	$ 1,973	$ 4,415	$ 166	$ 11,545
Acquisitions	2	–	–	–	2
Additions	861	–	–	–	861
Disposals	(7)	–	–	–	(7)
Foreign currency adjustments and other	(149)	(106)	–	–	(255)
Balance as at October 31, 2021	**$ 5,698**	**$ 1,867**	**$ 4,415**	**$ 166**	**$ 12,146**
Accumulated amortization					
Balance as at October 31, 2019	$ 2,169	$ 1,234	$ –	$ –	$ 3,403
Amortization	625	124	–	–	749
Disposals (including wind-downs)	(191)	(55)	–	–	(246)
Foreign currency adjustments and other	(22)	(75)	–	–	(97)
Balance as at October 31, 2020	$ 2,581	$ 1,228	$ –	$ –	$ 3,809
Amortization	639	103	–	–	742
Disposals	(5)	–	–	–	(5)
Foreign currency adjustments and other	(98)	(58)	–	–	(156)
Balance as at October 31, 2021	**$ 3,117**	**$ 1,273**	**$ –**	**$ –**	**$ 4,390**
Net book value					
As at October 31, 2020	$ 2,410(2)	$ 745	$ 4,415	$ 166	$ 7,736
As at October 31, 2021	**$ 2,581(2)**	**$ 594**	**$ 4,415**	**$ 166**	**$ 7,756**

(1) Fund management contracts are attributable to HollisWealth Inc. (formerly DundeeWealth Inc.), MD Financial Management Inc., and Jarislowsky Fraser Limited.
(2) Computer software comprises of purchased software of $880 (2020 – $507), internally generated software of $1,405 (2020 – $1,337), and in process software not subject to amortization of $797 (2020 – $566).

Impairment testing of indefinite life intangible assets

Indefinite life intangible assets are not amortized and are assessed for impairment annually or more frequently if events or changes in circumstances indicate that the asset may be impaired. Impairment is assessed by comparing the carrying value of the indefinite life intangible asset to its recoverable amount. The recoverable amount of the fund management contracts is based on a value in use approach using the multi-period excess earnings method. This approach uses cash flow projections from management-approved financial budgets which include key assumptions related to market appreciation, net sales of funds, and operating margins taking into consideration past experience and market expectations. The forecast cash flows cover a 5-year period, with a terminal growth rate in the range of 3 to 5% (2020 – 3 to 5%) applied thereafter. These cash flows have been discounted at rates in the range of10 to 12% (2020 – 10 to 12%) depending on the nature of the fund management contract intangible asset.

Indefinite life intangible assets were assessed for annual impairment as at July 31, 2021 and July 31, 2020 and no impairment was determined to exist.

Management believes that reasonable negative changes in any one key assumption used to determine the recoverable amount would not result in an impairment. No significant negative changes were noted as of October 31, 2021.

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19 Other Assets

As at October 31 ($ millions)	2021	2020
Accrued interest	**$ 2,155**	$ 2,812
Accounts receivable and prepaids	**2,201**	2,026
Current tax assets	**1,722**	1,520
Margin deposit derivatives	**5,990**	4,912
Segregated fund assets	**2,197**	2,248
Pension assets (Note 28)	**456**	260
Receivable from brokers, dealers and clients	**2,997**	2,347
Other	**4,226**	3,597
Total	**$ 21,944**	$ 19,722

20 Deposits

	2021					2020
	Payable on demand(1)					
As at October 31 ($ millions)	Interest-bearing	Non-interest-bearing	Payable after notice(2)	Payable on a fixed date(3)	Total	
Personal	**$ 9,214**	**$ 10,191**	**$ 159,191**	**$ 64,955**	**$ 243,551**	$ 246,135
Business and government	**176,757**	**34,254**	**46,150**	**254,187**	**511,348**	464,619
Financial institutions	**10,484**	**759**	**1,769**	**29,348**	**42,360**	40,084
Total	**$ 196,455**	**$ 45,204**	**$ 207,110(4)**	**$ 348,490**	**$ 797,259**	$ 750,838
Recorded in:						
Canada	**$ 139,980**	**$ 26,624**	**$ 172,859**	**$ 231,791**	**$ 571,254**	$ 541,589
United States	**44,112**	**157**	**4,431**	**38,926**	**87,626**	60,747
United Kingdom	**–**	**–**	**353**	**16,879**	**17,232**	14,977
Mexico	**–**	**5,707**	**6,718**	**11,834**	**24,259**	25,294
Peru	**5,056**	**54**	**5,552**	**3,858**	**14,520**	17,694
Chile	**2,842**	**6,289**	**154**	**11,346**	**20,631**	23,592
Colombia	**45**	**641**	**5,227**	**3,271**	**9,184**	9,308
Other International	**4,420**	**5,732**	**11,816**	**30,585**	**52,553**	57,637
Total(5)	**$ 196,455**	**$ 45,204**	**$ 207,110**	**$ 348,490**	**$ 797,259**	$ 750,838

(1) Deposits payable on demand include all deposits for which we do not have the right to notice of withdrawal, generally chequing accounts.
(2) Deposits payable after notice include all deposits for which we require notice of withdrawal, generally savings accounts.
(3) All deposits that mature on a specified date, generally term deposits, guaranteed investments certificates and similar instruments.
(4) Includes $193 (2020 – $158) of non-interest bearing deposits.
(5) Deposits denominated in U.S. dollars amount to $259,027 (2020 – $215,836), deposits denominated in Chilean pesos amount to $17,841 (2020 – $21,099), deposits denominated in Mexican pesos amount to $22,032 (2020 – $22,765) and deposits denominated in other foreign currencies amount to $82,871 (2020 – $83,706).

The following table presents the maturity schedule for term deposits in Canada greater than $100,000(1).

($ millions)	Within three months	Three to six months	Six to twelve months	One to five years	Over five years	Total
As at October 31, 2021	**$ 34,829**	**$ 24,372**	**$ 30,918**	**$ 90,433**	**$ 20,688**	**$ 201,240**
As at October 31, 2020	$ 38,739	$ 22,498	$ 30,850	$ 92,589	$ 18,072	$ 202,748

(1) The majority of foreign term deposits are in excess of $100,000.

21 Subordinated Debentures

These debentures are direct, unsecured obligations of the Bank and are subordinate to the claims of the Bank's depositors and other creditors. The Bank, where appropriate, enters into interest rate and cross-currency swaps to hedge the related risks.

As at October 31 ($ millions)			2021	2020
Maturity date	Interest rate (%)	Terms[1]	Carrying value[2]	Carrying value[2]
June 2025	8.90	Redeemable at any time.	**$ 255**	$ 251
December 2025[3]	3.367	On December 8, 2020, the Bank redeemed these notes at 100% of their principal amount plus accrued interest to the redemption date.	**–**	732
December 2025[3]	4.50	US$1,250 million. Interest will be payable semi-annually in arrears on June 16 and December 16 of each year, until maturity in December 2025.	**1,547**	1,665
March 2027[3]	2.58	Redeemable on or after March 30, 2022. After March 30, 2022, interest will be payable at an annual rate equal to the three-month bankers' acceptance rate plus 1.19%.	**1,156**	1,267
January 2029[3]	3.89	Redeemable on or after January 18, 2024. After January 18, 2024, interest will be payable at an annual rate equal to the three-month bankers' acceptance rate plus 1.58%.	**1,771**	1,844
July 2029[3]	2.836	Redeemable on or after July 3, 2024. After July 3, 2024, interest will be payable at an annual rate equal to the three-month bankers' acceptance rate plus 1.18%.	**1,510**	1,544
August 2085[4]	Floating	US$76 million bearing interest at a floating rate of the offered rate for six-month US$ LIBOR plus 0.125%. Redeemable on any interest payment date.	**95**	102
			$ 6,334	$ 7,405

(1) In accordance with the provisions of the Capital Adequacy Guideline of the Superintendent, all redemptions are subject to regulatory approval and subject to the terms in the relevant prospectus.
(2) The carrying value of subordinated debentures may differ from par value due to fair value hedge adjustments related to hedge accounting and adjustments related to subordinated debentures held for market-making purposes.
(3) These debentures contain non-viability contingent capital (NVCC) provisions. Under such NVCC provisions, outstanding debentures are convertible into a variable number of common shares if OSFI announces that the Bank has ceased, or is about to cease, to be viable, or if a federal or provincial government in Canada publicly announces that the Bank has accepted or agreed to accept a capital injection, or equivalent support, from the federal government or any provincial government or political subdivision or agent thereof without which the Bank would have been determined by OSFI to be non-viable. If such a conversion were to occur, the debentures would be converted into common shares pursuant to an automatic conversion formula defined as 150% of the par value plus accrued and unpaid interest divided by the conversion price. The conversion price is based on the greater of: (i) a floor price of $5.00 or, where applicable, the US dollar equivalent of $5.00 (subject to, in each case, adjustments in certain events as set out in the respective prospectus supplements), and (ii) the current market price of the Bank's common shares at the time of the trigger event (10-day weighted average), where applicable converted from CAD to USD.
(4) During the year ended October 31, 2020, the Bank purchased for cancellation approximately US$7 million subordinated debentures due 2085.

22 Other Liabilities

As at October 31 ($ millions)	2021	2020
Accrued interest	**$ 1,454**	$ 2,244
Lease liabilities[1]	**3,413**	3,475
Accounts payable and accrued expenses	**6,508**	5,441
Current tax liabilities	**1,344**	743
Deferred tax liabilities (Note 27)	**1,149**	1,073
Gold and silver certificates and bullion	**417**	1,112
Margin and collateral accounts	**7,313**	8,622
Segregated fund liabilities	**2,197**	2,248
Payables to brokers, dealers and clients	**958**	624
Provisions (Note 23)	**296**	125
Allowance for credit losses on off-balance sheet exposures (Note 13)	**65**	101
Pension liabilities (Note 28)	**661**	2,202
Other liabilities of subsidiaries and structured entities	**25,221**	25,938
Other	**7,803**	8,656
Total	**$ 58,799**	$ 62,604

(1) Presents discounted value of lease liabilities.

The table below sets out a maturity analysis of undiscounted lease liabilities showing the lease payments to be made after the reporting date:

As at October 31 ($ millions)	2021	2020
Within 1 year	**$ 420**	$ 451
1 to 2 years	**404**	434
2 to 3 years	**391**	420
3 to 4 years	**380**	403
4 to 5 years	**359**	367
After 5 years	**2,105**	2,080
Total	**$ 4,059**	$ 4,155

Consolidated Financial Statements

23 Provisions

($ millions)	
As at November 1, 2019	$ 210
Provisions made during the year	244
Provisions utilized / released during the year	(329)
Balance as at October 31, 2020	$ 125
Provisions made during the year	**306**
Provisions utilized / released during the year	**(135)**
Balance as at October 31, 2021	**$ 296**

Restructuring
The Bank recorded a restructuring charge of $126 million, substantially related to International Banking for the cost of reducing branches and full-time employees, driven by the accelerated customer adoption of digital channels and process automation. These efficiencies are a result of the Bank's commitment to simplify processes and optimize distribution channels to run businesses more effectively while meeting changing customer needs. This charge was recorded in the Other operating segment.

Legal
In the ordinary course of business, the Bank and its subsidiaries are routinely defendants in, or parties to a number of pending and threatened legal actions and regulatory proceedings, including actions brought on behalf of various classes of claimants. In view of the inherent difficulty of predicting the outcome of such matters, the Bank cannot state what the eventual outcome of such matters will be. However, based on current knowledge, management does not believe that liabilities, if any, arising from pending litigation or regulatory proceedings will have a material adverse effect on the Consolidated Statement of Financial Position or results of operations of the Bank.

Legal provisions are established when it becomes probable that the Bank will incur an expense related to a legal action and the amount can be reliably estimated. Such provisions are recorded at the best estimate of the amount required to settle any obligation related to these legal actions as at the balance sheet date, taking into account the risks and uncertainties surrounding the obligation. Management and internal and external experts are involved in estimating any amounts that may be required. The actual costs of resolving these claims may vary significantly from the amount of the legal provisions. The Bank's estimate involves significant judgement, given the varying stages of the proceedings, the fact that the Bank's liability, if any, has yet to be determined and the fact that the underlying matters will change from time to time. As such, there is a possibility that the ultimate resolution of those legal actions may be material to the Bank's consolidated results of operations for any particular reporting period.

Current Year
The Bank recorded settlement and litigation provisions in the amount of $62 million in connection with the Bank's former metals business. These provisions were recorded in the Other operating segment.

The Bank, through its Peruvian subsidiary, is engaged in legal actions on certain value-added tax assessed amounts and associated interest totalling $149 million, related to certain client transactions which occurred prior to the Bank's acquisition of the subsidiary. In November 2021, the Bank became aware that the Peruvian constitutional court dismissed the matter relating to the interest for procedural reasons. The Bank is analyzing the decision and evaluating its next steps in this matter. Actions related to the original assessed amount continue. Funds were placed on deposit with the Peruvian tax authority by 2014, which stopped the continued accrual of interest. The Bank is confident that it will be successful in these matters and intends to continue to defend its position. Accordingly, no amounts have been accrued in the consolidated financial statements.

Prior Year
In the prior year, Scotiabank entered into a Deferred Prosecution Agreement ("DPA") with the U.S. Department of Justice (the "DOJ"). Additionally, the Commodity Futures Trading Commission (the "CFTC") issued three separate orders against Scotiabank (collectively, the "Orders"). The DPA and the Orders (together, the "Resolutions") resolve the DOJ's and CFTC's previously disclosed investigations into Scotiabank's activities and trading practices in the metals markets and related conduct as well as pre-trade mid-market marks and related swap dealer compliance issues.

Under the terms of the Resolutions, the Bank made aggregate payments to the DOJ and CFTC of approximately $127.5 million (USD) and has agreed to retain an independent compliance monitor, which the Bank engaged on April 1, 2021. Under one of the orders, the CFTC will defer proceedings to suspend or revoke the Bank's provisional registration as a swap dealer subject to the Bank's implementation of a remediation plan, among other conditions, which the Bank is carrying out under the oversight of the independent compliance monitor.

24 Common shares, preferred shares and other equity instruments

(a) Common shares

Authorized:
An unlimited number of common shares without nominal or par value.
Issued and fully paid:

	2021		2020	
As at October 31 ($ millions)	Number of shares	Amount	Number of shares	Amount
Outstanding at beginning of year	**1,211,479,297**	**$ 18,239**	1,216,132,250	$ 18,264
Issued in relation to share-based payments, net (Note 26)	**3,016,072**	**200**	941,847	59
Issued in relation to the acquisition of a subsidiary or associated corporation	**842,154**	**68**	–	–
Repurchased for cancellation under the Normal Course Issuer Bid	**–**	**–**	(5,594,800)	(84)
Outstanding at end of year	**1,215,337,523**(1)	**$ 18,507**	1,211,479,297(1)	$ 18,239

(1) In the normal course of business, the Bank's regulated Dealer subsidiary purchases and sells the Bank's common shares to facilitate trading/institutional client activity. During fiscal 2021, the number of such shares bought and sold was 18,532,448 (2020 – 20,290,297).

Dividend

The dividends paid on common shares in fiscal 2021 and 2020 were $4,371 million ($3.60 per share) and $4,363 million ($3.60 per share), respectively. The Board of Directors approved a quarterly dividend of $1.00 per common share at its meeting on November 29, 2021. This quarterly dividend applies to shareholders of record at the close of business on January 4, 2022, and is payable January 27, 2022. Refer to Note 24(c) – Restriction on payment of dividends and retirement of shares.

Normal Course Issuer Bid

During the year ended October 31, 2020, the Bank repurchased and cancelled approximately 5.6 million common shares at a volume weighted average price of $73.95 per share for a total amount of $414 million.

On March 13, 2020, OSFI advised federally regulated deposit taking institutions to suspend common share buybacks as part of COVID-19 measures. As at October 31, 2021, the Bank does not have an active normal course issuer bid and did not repurchase any common shares during the twelve months then ended. On November 4, 2021, OSFI removed the COVID-19 related restrictions and advised that such institutions may, subject to approval, repurchase common shares.

On November 30, 2021, the Bank announced that OSFI and the TSX approved a normal course issuer bid (the "2021 NCIB") pursuant to which it may repurchase for cancellation up to 24 million of the Bank's common shares. Purchases under the 2021 NCIB may commence on December 2, 2021 and terminate upon earlier of: (i) the Bank purchasing the maximum number of common shares under the 2021 NCIB, (ii) the Bank providing a notice of termination, or (iii) December 1, 2022. On a quarterly basis, the Bank will notify OSFI prior to making purchases.

Non-viability Contingent Capital

The maximum number of common shares issuable on conversion of NVCC subordinated debentures, NVCC subordinated additional tier 1 capital notes, including those issued to Scotiabank LRCN Trust as recourse assets in respect of NVCC limited recourse capital notes, and NVCC preferred shares as at October 31, 2021 would be 3,246 million common shares (2020 – 3,237 million common shares) based on the floor price and excluding the impact of any accrued and unpaid interest and any declared but unpaid dividends (refer to Note 21 – Subordinated debentures and Note 24(b) – Preferred shares and other equity instruments for further details).

(b) Preferred shares and other equity instruments

Preferred shares

Authorized:

An unlimited number of preferred shares without nominal or par value.

Issued and fully paid:

	2021				2020			
As at October 31 ($ millions)	Number of shares	Amount	Dividends declared per share[1]	Conversion feature	Number of shares	Amount	Dividends declared per share	Conversion feature
Preferred shares:[a]								
Series 30[b]	–	–	–	–	–	–	0.227500	Series 31
Series 31[b]	–	–	–	–	–	–	0.331828	Series 30
Series 32[c]	–	–	**0.138829**	**Series 33**	11,161,422	279	0.515752	Series 33
Series 33[c]	–	–	**0.100614**	**Series 32**	5,184,345	130	0.579323	Series 32
Series 34[d]	–	–	**0.687500**	**Series 35**	14,000,000	350	1.375000	Series 35
Series 36[e]	–	–	**1.031250**	**Series 37**	20,000,000	500	1.375000	Series 37
Series 38[f][g][h]	**20,000,000**	**500**	**1.212500**	**Series 39**	20,000,000	500	1.212500	Series 39
Series 40[f][g][i]	**12,000,000**	**300**	**1.212500**	**Series 41**	12,000,000	300	1.212500	Series 41
Total preferred shares	**32,000,000**	**$ 800**			82,345,767	$ 2,059		

(1) Dividends declared from November 1, 2020 to October 31, 2021.

Terms of preferred shares

	First issue date	Issue price	Initial dividend	Initial dividend payment date	Rate reset spread	Redemption date	Redemption price
Preferred shares[a]:							
Series 32[c]	February 28, 2011	25.00	0.215410	April 27, 2011	1.34%	February 2, 2021	25.00
Series 33[c]	February 2, 2016	25.00	0.105690	April 27, 2016	1.34%	February 2, 2021	25.00
Series 34[d]	December 17, 2015	25.00	0.497300	April 27, 2016	4.51%	April 26, 2021	25.00
Series 36[e]	March 14, 2016	25.00	0.508600	July 27, 2016	4.72%	July 26, 2021	25.00
Series 38[f][g][h]	September 16, 2016	25.00	0.441800	January 27, 2017	4.19%	January 27, 2022	25.00
Series 40[f][g][i]	October 12, 2018	25.00	0.362100	January 29, 2019	2.43%	January 27, 2024	25.00

(a) Non-cumulative preferential cash dividends on all series are payable quarterly, as and when declared by the Board. Dividends on the Non-cumulative 5-Year Rate Reset Non-cumulative 5-Year Rate Reset Preferred Shares Non Viability Contingent Capital (NVCC) (Series 38 and 40) are payable at the applicable rate for the initial five-year fixed rate period ending one day prior to the redemption date. Subsequent to the initial five-year fixed rate period, and resetting every five years thereafter, the dividend on such Rate Reset Preferred Shares will be determined by the sum of the 5-year Government of Canada Yield plus the indicated rate reset spread, multiplied by $25.00. If outstanding, non-cumulative preferential cash dividends on the Series 39 and 41 are payable quarterly, as and when declared by the Board. Dividends on the Non-cumulative 5-Year Rate Reset Preferred Shares NVCC (Series 39 and 41) are payable, at a rate equal to the sum of the three month Government of Canada Treasury Bill rate plus the rate reset spread of the converted preferred shares, multiplied by $25.00. For each of the years presented, the Bank paid all of the non-cumulative preferred share dividends.

(b) On April 26, 2020 the Bank redeemed all outstanding Non-cumulative Preferred Shares Series 30 and 31 and paid dividends of $0.227500 and $0.331828, respectively, per share.

(c) On February 2, 2021, the Bank redeemed all outstanding Non-cumulative Preferred Shares Series 32 and Series 33 at a price equal to $25.00 per share plus dividends declared on January 26, 2021 of $0.009891 per Series 32 share and $0.006976 per Series 33 share.

(d) On April 26, 2021, the Bank redeemed all outstanding Non-cumulative Preferred Shares Series 34 at a price equal to $25.00 per share plus dividends declared on February 23, 2021 of $0.343750 per Series 34 share.

(e) On July 26, 2021, the Bank redeemed all outstanding Non-cumulative Preferred Shares Series 36 at a price equal to $25.00 per share plus dividends declared on June 1, 2021 of $0.343750 per Series 36 share.

(f) Holders of Fixed Rate Reset Preferred Shares (Series 38 and 40) will have the option to convert shares into an equal number of the relevant series of Floating Rate Preferred Shares on the applicable Rate Reset Series conversion date and every five years thereafter. Holders of Floating Rate Reset Preferred Shares (Series 39 and 41, if outstanding) have reciprocal conversion options into the relevant series of Fixed Rate Reset Preferred Shares. With respect to Series 38 and 39, and 40 and 41, if the Bank determines that, after giving effect to any Election Notices received, there would be less than 1,000,000 Fixed Rate or Floating Rate Preferred Shares of such Series issued and outstanding on an applicable conversion date, then all of the issued and outstanding preferred shares of such Series will automatically be converted into an equal number of the preferred shares of the other relevant Series.

(g) These preferred shares contain NVCC provisions necessary for the shares to qualify as Tier 1 regulatory capital under Basel III.
(h) Holders of Series 38 Non-cumulative 5-Year Rate Reset Preferred Shares (NVCC) will have the option to convert shares into an equal number of Series 39 non-cumulative floating rate preferred shares (NVCC) on January 27, 2022, and on January 27 every five years thereafter. With regulatory approval, Series 38 preferred shares may be redeemed by the Bank on January 27, 2022 and every five years thereafter, and for Series 39 preferred shares, if applicable, on January 27, 2027 and every five years thereafter, at $25.00 per share, together with declared and unpaid dividends.
(i) Holders of Series 40 Non-cumulative 5-Year Rate Reset Preferred Shares (NVCC) will have the option to convert shares into an equal number of Series 41 non-cumulative floating rate preferred shares (NVCC) on January 27, 2024, and on January 27 every five years thereafter. With regulatory approval, Series 40 preferred shares may be redeemed by the Bank on January 27, 2024 and every five years thereafter, and for Series 41 preferred shares, if applicable, on January 27, 2029 and every five years thereafter, at $25.00 per share, together with declared and unpaid dividends.

Under NVCC provisions, NVCC preferred shares Series 38, 39, 40 and 41, if outstanding, are convertible into a variable number of common shares if OSFI announces that the Bank has ceased, or is about to cease, to be viable, or if a federal or provincial government in Canada publicly announces that the Bank has accepted or agreed to accept a capital injection, or equivalent support, from the federal government or any provincial government or political subdivision or agent thereof without which the Bank would have been determined by OSFI to be non-viable. If such a conversion were to occur, NVCC preferred shares Series 38, 39, 40 and 41, if outstanding, would be converted into common shares pursuant to an automatic conversion formula defined as 100% times the share value of $25.00 plus declared and unpaid dividends divided by the conversion price. The conversion price is based on the greater of: (i) a floor price of $5.00 or (subject to adjustments in certain events as set out in their respective prospectus supplements), and (ii) the current market price of the Bank's common shares at the time of the trigger event (10-day weighted average).

Other equity instruments

Other equity instruments are comprised of NVCC additional Tier 1 qualifying regulatory capital notes:

First issue date	Notional Amount (millions)	Reset date	Interest rate	Payment frequency	Interest rate after reset	Redemption frequency after reset[1]	2021 Amount	2021 Distributions paid per Note[2]	2020 Amount	2020 Distributions paid per Note[2]
October 12, 2017, Subordinated Additional Tier 1 Capital Notes[3][4]	US$ 1,250	October 12, 2022	4.65%	Semi-annually	LIBOR[5] +2.648%	Quarterly	**$1,560**	**US$46.50**	$ 1,560	US$46.50
June 4, 2020, Subordinated Additional Tier 1 Capital Notes[3][4]	US$ 1,250	June 4, 2025	4.90%	Quarterly	UST[6] +4.551%	Every five years	**$1,689**	**US$49.00**	$ 1,689	US$12.25
June 15, 2021, Limited Recourse Capital Notes[3][8][9]	$ 1,250	July 27, 2026	3.70%	Quarterly	GOC[7] +2.761%	Every five years	**$1,250**	**$ 13.51**	$ –	$ –
October 7, 2021, Limited Recourse Capital Notes[3][8][10]	US$ 600	October 27, 2026	3.625%	Quarterly	UST[6] +2.613%	Quarterly	**$ 753**	**US$ –**	$ –	US$ –
Total other equity instruments							**$5,252**		$ 3,249	

(1) Each security is redeemable at the sole discretion of the Bank five years after its issuance and every quarter or five years, as applicable, thereafter. The securities are also redeemable following a regulatory or tax event, as described in the offering documents. All redemptions are subject to regulatory consent and occur at a redemption price of par plus accrued and unpaid interest (unless canceled, where applicable).
(2) Distributions paid from November 1 to October 31 in the relevant fiscal year per face amount of $1,000 or US$1,000, as applicable.
(3) The securities rank pari passu to each other and are the Bank's direct unsecured obligations, ranking subordinate to Bank's other subordinated indebtedness.
(4) While interest is payable on the securities when it becomes due, the Bank may, at its sole discretion and with notice, cancel interest payments. Refer to Note 24(c) – Restriction on payment of dividends and retirement of shares.
(5) Three-month US$ LIBOR.
(6) The then-prevailing five-year U.S. Treasury Rate.
(7) The then-prevailing five-year Government of Canada yield.
(8) Interest on Limited Recourse Capital Notes is non-deferrable, however, non-payment of interest that is not cured within five business days results in a Recourse Event. A Recourse Event of the respective Series occurs if (a) there is non-payment in cash by the Bank of the principal amount, together with any accrued and unpaid interest, on the maturity date, (b) there is non-payment in cash of interest which is not cured within 5 business days, (c) there is non-payment in cash of the redemption price in connection with the redemption of the LRCNs, (d) an event of default occurs (i.e. bankruptcy, insolvency, or liquidation of the Bank), or (e) there is an NVCC Trigger Event. Upon the occurrence of a Recourse Event, the noteholder's sole recourse will be limited to their proportionate share of the Series' respective assets held in Scotiabank LRCN Trust, a consolidated entity, which consist initially of the respective AT1 Notes or, following an NVCC Trigger Event, common shares.
(9) On June 15, 2021, the Bank issued $1,250 million 3.70% Fixed Rate Resetting Limited Recourse Capital Notes Series 1 (NVCC) ("LRCN Series 1"). In connection with the issuance of LRCN Series 1, the Bank issued $1,250 million of Fixed Rate Resetting Perpetual Subordinated Additional Tier 1 Capital Notes (NVCC) ("the Series 1 AT1 Notes") at a price of $1,000 per Series 1 AT1 Note, to Scotiabank LRCN Trust to be held as trust assets in connection with the Limited Recourse Capital Notes (LRCN) structure.
(10) On October 7, 2021, the Bank issued US$600 million 3.625% Fixed Rate Resetting Limited Recourse Capital Notes Series 2 (NVCC) ("LRCN Series 2"). In connection with the issuance of LRCN Series 2, the Bank issued US$600 million of Fixed Rate Resetting Perpetual Subordinated Additional Tier 1 Capital Notes (NVCC) ("the Series 2 AT1 Notes") at a price of US$1,000 per Series 2 AT1 Note, to Scotiabank LRCN Trust to be held as trust assets in connection with the LRCN structure.

Contractual NVCC provisions contained in the Bank's Subordinated Additional Tier 1 Capital Notes, including those issued to Scotiabank LRCN Trust as recourse assets in respect of the LRCNs, trigger conversion of these securities into a variable number of common shares if OSFI announces that the Bank has ceased, or is about to cease, to be viable, or if a federal or provincial government in Canada publicly announces that the Bank has accepted or agreed to accept a capital injection, or equivalent support, from the federal government or any provincial government or political subdivision or agent thereof without which the Bank would have been determined by OSFI to be non-viable. If such a conversion were to occur, outstanding Subordinated Additional Tier 1 Capital Notes (NVCC), would be converted into common shares pursuant to an automatic conversion formula defined as 125% of the par value plus accrued and unpaid interest divided by the conversion price. The conversion price is based on the greater of: (i) $5.00 (subject to adjustments in certain events and converted to US dollar-equivalent, where applicable, each as set out in their respective prospectus supplements), and (ii) the current market price of the Bank's common shares at the time of the trigger event (10-day weighted average and converted to US dollar-equivalent, where applicable). U.S. dollar equivalents of the floor price and the current market price, where applicable, are based on the CAD/USD exchange rate on the day prior to the trigger event.

The notes above have been determined to be compound instruments that have both equity and liability features. At inception, the fair value of the liability component is initially measured with any residual amount assigned to the equity component. On the respective dates of issuance, the Bank has assigned an insignificant value to each liability component of the notes and, as a result, the proceeds received upon issuance of the notes have been presented as equity. The Bank will continue to monitor events that could impact the value of the liability component.

During the year ended October 31, 2021, the Bank paid aggregate distributions on these notes of $162 million (2020 – $99 million), net of income taxes of $4 million (2020 – nil), based on exchange rates in effect on the payment dates.

(c) Restrictions on payment of dividends and retirement of shares

Under the Bank Act, the Bank is prohibited from declaring any dividends on its common or preferred shares or redeeming, purchasing or otherwise retiring such shares when the Bank is, or would be placed by such a declaration or retirement, in contravention of the capital adequacy, liquidity or any other regulatory directives issued under the Bank Act.

In the event that applicable cash distributions on any of the Scotiabank Trust Securities are not paid on a regular distribution date, the Bank has undertaken not to declare dividends of any kind on its preferred or common shares until such distributions are made in full or the twelfth month following the non-payment of such distributions. Similarly, should the Bank fail to declare regular dividends on any of its directly issued and outstanding preferred or common shares, cash distributions will also not be made on any of the Scotiabank Trust Securities.

In the event that distributions are not paid in full on the Bank's Subordinated Additional Tier 1 Capital Notes (NVCC), including those issued as recourse assets in respect of LRCNs to Scotiabank LRCN Trust where the trustee has not waived such distributions or no longer holds the respective AT1 Notes, the Bank has undertaken not to declare dividends on its common or preferred shares or redeem, purchase or otherwise retire such shares until the month commencing after such distributions have been made in full.

In the event that dividends to which preferred shareholders are then entitled have not been paid or sufficient funds have not been set aside to do so, the Bank has undertaken not to declare dividends on its common shares or redeem, purchase or otherwise retire its common shares.

On March 13, 2020, OSFI advised federally regulated deposit taking institutions to suspend buybacks and increases to dividends in respect of its common shares as part of COVID-19 measures. On November 4, 2021, OSFI removed the COVID-19 related restrictions and advised that such institutions may increase regular dividends and, subject to approval, repurchase common shares.

Currently, the above limitations do not restrict the payment of dividends on or retirement of preferred or common shares.

25 Capital Management

The primary regulator over the Bank's consolidated capital adequacy is the Office of the Superintendent of Financial Institutions, Canada (OSFI). The capital adequacy regulations in Canada are largely consistent with international standards set by the Basel Committee on Banking Supervision (BCBS). OSFI requires Canadian deposit-taking institutions to fully implement the 2019 Basel III reforms and achieve minimums of 7%, 8.5% and 10.5% for CET1, Tier 1 and Total Capital, respectively. OSFI has also designated the Bank as a domestic systemically important bank (D-SIB), increasing its minimum capital ratio requirements by 1% across all tiers of capital effective January 1, 2016, in line with the requirements for global systemically important banks.

In addition, OSFI expects D-SIBs to hold a 2.5% Domestic Stability Buffer, as at October 31, 2021. This results in current targets, including all buffers, for CET1, Tier 1 and Total Capital ratios of 10.5%, 12.0% and 14.0%, respectively. In addition to risk-based capital requirements, the Basel III reforms introduced a simpler, non risk-based Leverage ratio requirement to act as a supplementary measure to its risk-based capital requirements. Institutions are expected to maintain a material operating buffer above the 3% minimum.

The Bank's regulatory capital ratios were as follows:

As at October 31 ($ millions)	2021	2020
Capital[1]		
Common Equity Tier 1 capital	**$ 51,010**	$ 49,165
Net Tier 1 capital	**57,915**	55,362
Total regulatory capital	**66,101**	64,512
Risk-weighted assets/exposures used in calculation of capital ratios		
Risk-weighted assets[1][2]	**$ 416,105**	$ 417,138
Leverage exposures[3]	**1,201,766**	1,170,290
Capital ratios[1]		
Common Equity Tier 1 capital ratio	**12.3%**	11.8%
Tier 1 capital ratio	**13.9%**	13.3%
Total capital ratio	**15.9%**	15.5%
Leverage ratio[3]	**4.8%**	4.7%

(1) This measure has been disclosed in this document in accordance with OSFI Guideline - Capital Adequacy Requirements (November 2018).
(2) OSFI has prescribed a minimum capital floor for institutions that use the advanced internal ratings-based approach for credit risk. The Basel II capital floor add-on is determined by comparing a capital requirement under the Basel II standardized approach for credit risk, in addition to OSFI prescribed requirements for market risk and credit valuation adjustment RWA. A shortfall in the Basel III capital requirement as compared with the Basel II capital floor is added to RWA. Under this Basel II regulatory capital floor requirement, the Bank does not have a capital floor add-on as at October 31, 2021 (October 31, 2020 – nil).
(3) This measure has been disclosed in this document in accordance with OSFI Guideline - Leverage Requirements (November 2018).

The Bank substantially exceeded the OSFI minimum capital ratios as at October 31, 2021, including the Domestic Stability Buffer requirement.

26 Share-Based Payments

(a) Stock option plans

The Bank grants stock options as part of the employee Stock Option Plan as well as stand-alone stock appreciation rights (SARs). Options to purchase common shares and/or to receive an equivalent cash payment, as applicable, may be granted to select employees at an exercise price of the higher of the closing price of the Bank's common shares on the TSX on the trading day prior to the grant date or the volume weighted average trading price for the five trading days immediately preceding the grant date.

Stock options granted since December 2014 vest 50% at the end of the third year and 50% at the end of the fourth year. This change is prospective and does not impact prior period grants. Stock options are exercisable no later than 10 years after the grant date. In the event that the expiry date falls within an insider trading blackout period, the expiry date will be extended for 10 business days after the end of the blackout

period. As approved by the shareholders, a total of 129 million common shares have been reserved for issuance under the Bank's employee Stock Option Plan of which 115 million common shares have been issued as a result of the exercise of options and 10 million common shares are committed under outstanding options, leaving 4 million common shares available for issuance as options. Outstanding options expire on dates ranging from December 5, 2021 to December 10, 2030.

The cost of these options is recognized on a graded vesting basis except where the employee is eligible to retire prior to a tranche's vesting date, in which case the cost is recognized between the grant date and the date the employee is eligible to retire.

The Stock Option Plan includes:

- Stock options

  Employee stock options granted are equity-classified stock options which call for settlement in shares.

  The amount recorded in equity – other reserves for vested stock options as at October 31, 2021 was $111 million (2020 – $130 million).

  In 2021, an expense of $7 million (2020 – $6 million) was recorded in salaries and employee benefits in the Consolidated Statement of Income. As at October 31, 2021, future unrecognized compensation cost for non-vested stock options was $6 million (2020 – $4 million) which is to be recognized over a weighted-average period of 2.02 years (2020 – 2.01 years).

- Stock appreciation rights

  Stand-alone SARs are granted instead of stock options to select employees in countries where local laws may restrict the Bank from issuing shares. When a SAR is exercised, the Bank pays the appreciation amount in cash equal to the rise in the market price of the Bank's common shares since the grant date.

  During fiscal 2021, 90,392 SARs were granted (2020 – 83,050) and as at October 31, 2021, 578,643 SARs were outstanding (2020 – 704,439), of which 571,575 SARs were vested (2020 – 698,533).

  The share-based payment liability recognized for vested SARs as at October 31, 2021 was $7 million (2020 – $2 million). The corresponding intrinsic value of this liability as at October 31, 2021 was $7 million (2020 – nil).

  In 2021, a benefit of $1 million (2020 – benefit of $3 million) was recorded in salaries and employee benefits in the Consolidated Statement of Income. This benefit is net of gains arising from derivatives used to manage the volatility of share-based payments of $12 million (2020 – $5 million losses).

Determination of fair values

The share-based payment liability and corresponding expense for SARs were quantified using the Black-Scholes option pricing model with the following assumptions and resulting fair value per award:

As at October 31	2021	2020
Assumptions		
Risk-free interest rate%	**0.59% – 1.53%**	0.25% – 0.45%
Expected dividend yield	**4.34%**	6.30%
Expected price volatility	**15.12% – 23.51%**	21.30% – 31.40%
Expected life of option	**0.00 – 6.12 years**	0.00 – 6.10 years
Fair value		
Weighted-average fair value	**$ 14.46**	$ 2.78

The share-based payment expense for stock options, was quantified using the Black-Scholes option pricing model on the date of grant. The fiscal 2021 and 2020 stock option grants were fair valued using the following weighted-average assumptions and resulting fair value per award:

	2021 Grant	2020 Grant
Assumptions		
Risk-free interest rate %	**0.58%**	1.61%
Expected dividend yield	**5.10%**	4.55%
Expected price volatility	**19.41%**	13.37%
Expected life of option	**6.8 Years**	6.7 years
Fair value		
Weighted-average fair value	**$ 4.60**	$ 3.81

The risk-free rate is based on Canadian treasury bond rates interpolated for the maturity equal to the expected life until exercise of the options. Expected dividend yield is based on historical dividend payout. Expected price volatility is determined based on the historical volatility for compensation. For accounting purposes, an average of the market consensus implied volatility for traded options on our common shares and the historical volatility is used.

Details of the Bank's Employee Stock Option Plan are as follows[1]:

As at October 31	2021 Number of stock options (000's)	2021 Weighted average exercise price	2020 Number of stock options (000's)	2020 Weighted average exercise price
Outstanding at beginning of year	**11,792**	**$ 66.44**	11,509	$ 64.35
Granted	**1,876**	**74.34**	1,594	74.34
Exercised as options	**(3,016)**	**53.50**	(942)	53.50
Exercised as SARs	**(59)**	**61.30**	(37)	61.30
Forfeited	**(127)**	**70.23**	(293)	70.23
Expired	**(8)**	**61.55**	(39)	61.55
Outstanding at end of year[2]	**10,458**	**$ 69.08**	11,792	$ 66.44
Exercisable at end of year[2]	**5,252**	**$ 65.85**	7,337	$ 61.08
Available for grant	**3,945**		5,628	

As at October 31, 2021	Options Outstanding Number of stock options (000's)	Weighted average remaining contractual life (years)	Weighted average exercise price	Options Exercisable Number of stock options (000's)	Weighted average exercise price
Range of exercise prices					
$49.93 to $55.21	**267**	**0.10**	**$ 49.93**	**267**	**$ 49.93**
$55.63 to $66.67	**2,598**	**2.33**	**$ 60.60**	**2,598**	**$ 60.60**
$63.98 to $81.81	**7,593**	**6.73**	**$ 72.66**	**2,387**	**$ 73.35**
	10,458	**5.47**	**$ 69.08**	**5,252**	**$ 65.85**

(1) Excludes SARs.
(2) Includes and nil options originally issued under HollisWealth plans (2020 –10,000).

(b) Employee share ownership plans

Eligible employees can contribute up to a specified percentage of salary towards the purchase of common shares of the Bank. In general, the Bank matches50-60% of eligible contributions, depending on the region, up to a maximum dollar amount, which is expensed in salaries and employee benefits. During 2021, the Bank's contributions totalled $74 million (2020 – $71 million). Contributions, which are used to purchase common shares in the open market, do not result in a subsequent expense to the Bank from share price appreciation.

As at October 31, 2021, an aggregate of18 million common shares were held under the employee share ownership plans (2020 – 17 million). The shares in the employee share ownership plans are considered outstanding for computing the Bank's basic and diluted earnings per share.

(c) Other share-based payment plans

Other share-based payment plans use notional units that are valued based on the Bank's common share price on the TSX. Most grants of units accumulate dividend equivalents in the form of additional units based on the dividends paid on the Bank's common shares. These plans are settled in cash and, as a result, are liability-classified. Fluctuations in the Bank's share price change the value of the units, which affects the Bank's share-based payment expense. As described below, the value of the Performance Share Units also varies based on Bank performance. Upon exercise or redemption, payments are made to the employees with a corresponding reduction in the accrued liability.

In 2021, an aggregate expense of $218 million (2020 – $294 million) was recorded in salaries and employee benefits in the Consolidated Statement of Income for these plans. This expense includes gains from derivatives used to manage the volatility of share-based payments of $306 million (2020 – $180 million losses).

As at October 31, 2021, the share-based payment liability recognized for vested awards under these plans was $887 million (2020 – $534 million).

Details of these other share-based payment plans are as follows:

Deferred Stock Unit Plan (DSU)

Under the DSU Plan, senior executives may elect to receive all or a portion of their cash bonus under the Annual Incentive Plan (which is expensed for the year awarded in salaries and employee benefits in the Consolidated Statement of Income) in the form of deferred stock units which vest immediately. In addition the DSU plan allows for eligible executives of the Bank to participate in grants that are not allocated from the Annual Incentive Plan election. These grants are subject to specific vesting schedules. Units are redeemable in cash only when an executive ceases to be a Bank employee, and must be redeemed by December 31 of the year following that event. As at October 31, 2021, there were 1,496,911 units (2020 – 1,239,755) awarded and outstanding of which 1,095,062 units were vested (2020 – 762,568).

Directors' Deferred Stock Unit Plan (DDSU)

Under the DDSU Plan, non-officer directors of the Bank may elect to receive all or a portion of their fee for that fiscal year (which is expensed by the Bank in other expenses in the Consolidated Statement of Income) in the form of deferred stock units which vest immediately. Units are redeemable in cash, only following resignation or retirement, and must be redeemed by December 31 of the year following that event. As at October 31, 2021, there were 245,138 units outstanding (2020 – 253,960).

Restricted Share Unit Plan (RSU)

Under the RSU Plan, select employees receive an award of restricted share units which, for the majority of grants, vest at the end of three years. There are certain grants that provide for a graduated vesting schedule. Upon vesting, all RSU units are paid in cash to the employee. The share-based payment expense is recognized evenly over the vesting period except where the employee is eligible to retire prior to the vesting date in which case, the expense is recognized between the grant date and the date the employee is eligible to retire. As at October 31, 2021, there were 4,342,698 units (2020 – 3,641,678) awarded and outstanding of which 2,929,298 were vested (2020 – 2,571,388).

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Performance Share Unit Plan (PSU)
Eligible executives receive an award of performance share units which, for the majority of grants, vest at the end of three years. Certain grants provide for a graduated vesting schedule which includes a specific performance factor calculation. PSU awards are subject to performance criteria measured over a three-year period whereby a multiplier factor is applied which impacts the incremental number of units due to employees. The three-year performance measures include return on equity compared to target and total shareholder return relative to a comparator group selected prior to the granting of the award. The Bank uses a probability-weighted-average of potential outcomes to estimate the multiplier impact. The share-based payment expense is recognized over the vesting period except where the employee is eligible to retire prior to the vesting date; in which case, the expense is recognized between the grant date and the date the employee is eligible to retire. This expense varies based on changes in the Bank's share price and the Bank's performance compared to the performance measures. Upon vesting, the units are paid in cash to the employee. As at October 31, 2021, there were 8,693,704 units (2020 – 7,786,944) outstanding subject to performance criteria, of which 6,467,053 units were vested (2020 – 5,982,171).

Deferred Performance Plan
Under the Deferred Performance Plan, a portion of the bonus received by Global Banking and Markets employees in 2017 and prior years (which is accrued and expensed in the year to which it relates) is allocated to qualifying employees in the form of units. These units are subsequently paid in cash to the employees over each of the following three years. Changes in the value of the units, which arise from fluctuations in the market price of the Bank's common shares, are expensed in the same manner as the Bank's other liability-classified share-based payment plans in the salaries and employee benefits expense in the Consolidated Statement of Income. As at October 31, 2021, there were nil units outstanding (2020 – 168,580). November 30, 2017 was the last grant under this plan, there will be no further grants.

27 Corporate Income Taxes

Corporate income taxes recorded in the Bank's consolidated financial statements for the years ended October 31 are as follows:

(a) Components of income tax provision

For the year ended October 31 ($ millions)	2021	2020	2019
Provision for income taxes in the Consolidated Statement of Income:			
Current income taxes:			
Domestic:			
Federal	**$ 1,105**	$ 635	$ 525
Provincial	**824**	529	444
Adjustments related to prior periods	**(27)**	(29)	5
Foreign	**726**	1,053	1,215
Adjustments related to prior periods	**(24)**	24	(48)
	2,604	2,212	2,141
Deferred income taxes:			
Domestic:			
Federal	**32**	(159)	174
Provincial	**8**	(97)	103
Foreign	**227**	(413)	54
	267	(669)	331
Total provision for income taxes in the Consolidated Statement of Income	**$ 2,871**	$ 1,543	$ 2,472
Provision for income taxes in the Consolidated Statement of Changes in Equity:			
Current income taxes	**$ 435**	$ 149	$ (108)
Deferred income taxes	**(100)**	(212)	60
	335	(63)	(48)
Reported in:			
Other Comprehensive Income	**341**	(63)	(33)
Retained earnings	**(6)**	–	(18)
Other reserves	**–**	–	3
Total provision for income taxes in the Consolidated Statement of Changes in Equity	**335**	(63)	(48)
Total provision for income taxes	**$ 3,206**	$ 1,480	$ 2,424
Provision for income taxes in the Consolidated Statement of Income includes:			
Deferred tax expense (benefit) relating to origination/reversal of temporary differences	**$ 269**	$ (672)	$ 329
Deferred tax expense (benefit) of tax rate changes	**(2)**	3	2
	$ 267	$ (669)	$ 331

(b) Reconciliation to statutory rate

Income taxes in the Consolidated Statement of Income vary from the amounts that would be computed by applying the composite federal and provincial statutory income tax rate for the following reasons:

For the year ended October 31 ($ millions)	2021 Amount	2021 Percent of pre-tax income	2020 Amount	2020 Percent of pre-tax income	2019 Amount	2019 Percent of pre-tax income
Income taxes at Canadian statutory rate	**$ 3,364**	**26.2%**	$ 2,209	26.3%	$ 2,983	26.5%
Increase (decrease) in income taxes resulting from:						
Lower average tax rate applicable to subsidiaries and foreign branches	**(245)**	**(1.9)**	(489)	(5.8)	(300)	(2.7)
Tax-exempt income from securities	**(236)**	**(1.8)**	(207)	(2.4)	(221)	(2.0)
Deferred income tax effect of substantively enacted tax rate changes	**(2)**	**–**	3	–	2	–
Other, net	**(10)**	**(0.1)**	27	0.3	8	0.1
Total income taxes and effective tax rate	**$ 2,871**	**22.4%**	$ 1,543	18.4%	$ 2,472	21.9%

(c) Deferred taxes

Significant components of the Bank's deferred tax assets and liabilities are as follows:

October 31 ($ millions)	Statement of Income For the year ended 2021	Statement of Income For the year ended 2020	Statement of Financial Position As at 2021	Statement of Financial Position As at 2020
Deferred tax assets:				
Loss carryforwards	**$ 52**	$ 60	**$ 174**	$ 226
Allowance for credit losses	**405**	(718)	**922**	1,380
Deferred compensation	**(77)**	44	**241**	164
Deferred income	**88**	112	**254**	352
Property and equipment	**(106)**	(35)	**364**	368
Pension and other post-retirement benefits	**(28)**	(52)	**522**	980
Securities	**(21)**	(26)	**323**	187
Lease liabilities	**59**	49	**875**	827
Cash flow hedges	**–**	–	**49**	–
Other	**(119)**	(78)	**663**	650
Total deferred tax assets	**$ 253**	$ (644)	**$ 4,387**	$ 5,134
Deferred tax liabilities:				
Cash flow hedges	**$ –**	$ –	**$ 34**	$ 360
Deferred compensation	**(16)**	(25)	**131**	121
Deferred income	**(8)**	(15)	**14**	15
Property and equipment	**94**	158	**808**	849
Pension and other post-retirement benefits	**(9)**	(7)	**97**	90
Securities	**14**	(40)	**179**	201
Investment in subsidiaries and associates	**(40)**	82	**122**	98
Intangible assets	**53**	(1)	**1,774**	1,837
Other	**(102)**	(127)	**326**	451
Total deferred tax liabilities	**$ (14)**	$ 25	**$ 3,485**	$ 4,022
Net deferred tax assets (liabilities)[1]	**$ 267**	$ (669)	**$ 902**	$ 1,112

(1) For Consolidated Statement of Financial Position presentation, deferred tax assets and liabilities are assessed by legal entity. As a result, the net deferred tax assets of $902 (2020 – $1,112) are represented by deferred tax assets of $2,051 (2020 – $2,185), and deferred tax liabilities of $1,149 (2020 – $1,073) on the Consolidated Statement of Financial Position.

The major changes to net deferred taxes were as follows:

For the year ended October 31 ($ millions)	2021	2020
Balance at beginning of year	**$ 1,112**	$ 263
Deferred tax benefit (expense) for the year recorded in income	**(267)**	669
Deferred tax benefit (expense) for the year recorded in equity	**100**	212
Disposed in divestitures	**–**	9
Other	**(43)**	(41)
Balance at end of year	**$ 902**	$ 1,112

The tax related to temporary differences, unused tax losses and unused tax credits for which no deferred tax asset is recognized in the Consolidated Statement of Financial Position amounts to $24 million (October 31, 2020 – $15 million). The amount related to unrecognized losses is $24 million, which will expire as follows: $23 million between 2023 and 2031 and $1 million has no expiry.

Included in the net deferred tax asset are tax benefits of $164 million (2020 – $177 million) that have been recognized in certain Canadian and foreign subsidiaries that have incurred losses in either the current or the preceding year. In determining if it is appropriate to recognize these tax benefits, the Bank relied on projections of future taxable profits.

The amount of taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures for which deferred tax liabilities have not been recognized at October 31, 2021 is approximately $34 billion (2020 – $35 billion).

Canadian Tax Matters

Since 2016, the Bank has received reassessments totaling $1,025 million of tax and interest as a result of the Canada Revenue Agency denying the tax deductibility of certain Canadian dividends received during the 2011-2015 taxation years. In June 2021, the Bank received a reassessment for $176 million of tax and interest in respect of certain Canadian dividends received during the 2016 taxation year. The circumstances of the dividends subject to these reassessments are similar to those prospectively addressed by rules introduced in 2015 and 2018.

A subsidiary of the Bank has received withholding tax assessments from the CRA in respect of certain of its securities lending transactions for its 2014 and 2015 taxation years totaling $173 million of tax, penalties and interest. Proposed assessments totaling $300 million have also been received in respect of similar securities lending transactions in 2016 and 2017.

In respect of both matters the Bank is confident that its tax filing position was appropriate and in accordance with the relevant provisions of the Income Tax Act (Canada) and intends to vigorously defend its position.

28 Employee Benefits

The Bank sponsors a number of employee benefit plans, including pensions (defined benefit and defined contribution) and other benefit plans (post-retirement benefits and other long-term employee benefits) for most of its employees globally. The information presented below relates to the Bank's principal plans; other plans operated by certain subsidiaries of the Bank are not considered material and are not included in these disclosures.

Global pension plans

The principal pension plans include plans in Canada, the US, Mexico, the UK, Ireland, Jamaica, Trinidad & Tobago and other countries in the Caribbean in which the Bank operates. The Bank has a strong and well defined governance structure to manage these global obligations. The investment policy for each principal plan is reviewed periodically and all plans are in good standing with respect to legislation and local regulations.

Actuarial valuations for funding purposes for the Bank's funded pension plans are conducted as required by applicable legislation. The purpose of the actuarial valuation is to determine the funded status of the plans on a going-concern and statutory basis and to determine the required contributions. The plans are funded in accordance with applicable pension legislation and the Bank's funding policies such that future benefit promises based on plan provisions are well secured. The assumptions used for the funding valuations are set by independent plan actuaries on the basis of the requirements of the local actuarial standards of practice and statutes.

Scotiabank Pension Plan (Canada)

The most significant pension plan is the Scotiabank Pension Plan (SPP) in Canada, which includes a closed defined benefit (DB) component. New employees hired in Canada on or after May 1, 2018, participate in a defined contribution (DC) component only. As the administrator of the SPP, the Bank has established a well-defined governance structure and policies to maintain compliance with legislative and regulatory requirements under OSFI and the Canada Revenue Agency. The Bank appoints a number of committees to oversee and make decisions related to the administration of the SPP. Certain committees are also responsible for the investment of the assets of the SPP Fund and for monitoring the investment managers and performance.

- The Human Capital and Compensation Committee (HCOB) of the Board approves the charter of the Pension Administration and Investment Committee (PAIC), reviews reports, and approves the investment policy. The HCOB also reviews and recommends any amendments to the SPP to the Board of Directors.
- PAIC is responsible for recommending the investment policy to the HCOB, for appointing and monitoring investment managers, and for reviewing auditor and actuary reports. PAIC also monitors the administration of member pension benefits. PAIC has independent member representation on the committee.
- The Scotiabank Master Trust Committee (MTC) invests assets in accordance with the investment policy and all applicable legislation. The MTC assigns specific mandates to investment managers.
- The Capital Accumulation Plans (CAP) Committee is responsible for the administration and investment of the DC component of the SPP including the selection and monitoring of investment options available to DC participants.

Actuarial valuations for funding purposes for the SPP are conducted on an annual basis. The most recent funding valuation was conducted as of November 1, 2020. Contributions are being made to the SPP in accordance with this valuation and are shown in the table in b) below. The assumptions used for the funding valuation are set by independent plan actuaries on the basis of the requirements of the Canadian Institute of Actuaries and applicable regulation.

Other benefit plans

The principal other benefit plans include plans in Canada, the US, Mexico, Uruguay, the UK, Jamaica, Trinidad & Tobago, Colombia and other countries in the Caribbean in which the Bank operates. The most significant other benefit plans provided by the Bank are in Canada.

Key assumptions

The financial information reported below in respect of pension and other benefit plans is based on a number of assumptions. The most significant assumption is the discount rate used to determine the defined benefit obligation, which is set by reference to the yields on high quality corporate bonds that have durations that match the terms of the Bank's obligations. Separate discount rates are used to determine the annual benefit expense in Canada and the US. These rates are determined with reference to the yields on high quality corporate bonds with durations that match the various components of the annual benefit expense. The discount rate used to determine the annual benefit expense for all other plans continues to be the same as the rate used to determine the defined benefit obligation. Other assumptions set by management are determined in reference to market conditions, plan-level experience, best practices and future expectations. The key weighted-average assumptions used by the Bank for the measurement of the benefit obligation and benefit expense for all of the Bank's principal plans are summarized in the table in f) below.

Risk management

The Bank's defined benefit pension plans and other benefit plans expose the Bank to a number of risks. Some of the more significant risks include interest rate risk, investment risk, longevity risk and health care cost increases, among others. These risks could result in higher defined benefit expense and a higher defined benefit obligation to the extent that:

- there is a decline in discount rates; and/or
- plan assets returns are less than expected; and/or
- plan members live longer than expected; and/or
- health care costs are higher than assumed.

In addition to the governance structure and policies in place, the Bank manages risks by regularly monitoring market developments and asset investment performance. The Bank also monitors regulatory and legislative changes along with demographic trends and revisits the investment strategy and/or plan design as warranted.

a) Relative size of plan obligations and assets

	Pension plans			Other benefit plans	
	Canada				
For the year ended October 31, 2021	SPP	Other	International	Canada	International
Percentage of total benefit obligations	**72%**	**15%**	**13%**	**56%**	**44%**
Percentage of total plan assets	**75%**	**10%**	**15%**	**0%**	**100%**
Percentage of total benefit expense[1]	**78%**	**21%**	**1%**	**31%**	**69%**

	Pension plans			Other benefit plans	
	Canada				
For the year ended October 31, 2020	SPP	Other	International	Canada	International
Percentage of total benefit obligations	72%	15%	13%	56%	44%
Percentage of total plan assets	72%	10%	18%	0%	100%
Percentage of total benefit expense[1]	78%	20%	2%	36%	64%

(1) Excludes non-routine benefit expense items such as past service costs, curtailment charges and settlement charges.

b) Cash contributions and payments

The table below shows the cash contributions and payments made by the Bank to its principal plans in 2021, and the two prior years.

Contributions to the principal plans for the year ended October 31 ($ millions)	2021	2020	2019
Defined benefit pension plans (cash contributions to fund the plans, including paying beneficiaries under the unfunded pension arrangements)			
SPP (excluding DC provision)	**$ 320**	$ 218	$ 196
All other plans	**85**	158	53
Other benefit plans (cash contributions mainly in the form of benefit payments to beneficiaries)	**73**	53	78
Defined contribution pension and other benefit plans (cash contributions)	**103**	90	69
Total contributions[1]	**$ 581**	$ 519	$ 396

(1) Based on preliminary estimates, the Bank expects to make contributions of $295 to the SPP (excluding the DC provision), $76 to all other defined benefit pension plans, $65 to other benefit plans and $114 to all defined contribution plans for the year ending October 31, 2022.

c) Funded and unfunded plans

The excess (deficit) of the fair value of assets over the benefit obligation at the end of the year includes the following amounts for plans that are wholly unfunded and plans that are wholly or partly funded.

	Pension plans			Other benefit plans		
As at October 31 ($ millions)	2021	2020	2019	2021	2020	2019
Benefit obligation						
Benefit obligation of plans that are wholly unfunded	**$ 438**	$ 476	$ 459	**$ 1,058**	$ 1,139	$ 1,157
Benefit obligation of plans that are wholly or partly funded	**9,146**	9,873	9,248	**244**	281	300
Funded status						
Benefit obligation of plans that are wholly or partly funded	**$ 9,146**	$ 9,873	$ 9,248	**$ 244**	$ 281	$ 300
Fair value of assets	**9,464**	8,541	8,439	**143**	158	193
Excess (deficit) of fair value of assets over benefit obligation of wholly or partly funded plans	**$ 318**	$ (1,332)	$ (809)	**$ (101)**	$ (123)	$ (107)
Benefit obligation of plans that are wholly unfunded	**438**	476	459	**1,058**	1,139	1,157
Excess (deficit) of fair value of assets over total benefit obligation	**$ (120)**	$ (1,808)	$ (1,268)	**$ (1,159)**	$ (1,262)	$ (1,264)
Effect of asset limitation and minimum funding requirement	**(85)**	(134)	(2)	**–**	–	–
Net asset (liability) at end of year	**$ (205)**	$ (1,942)	$ (1,270)	**$ (1,159)**	$ (1,262)	$ (1,264)

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d) Financial information

The following tables present financial information related to the Bank's principal plans.

For the year ended October 31 ($ millions)	Pension plans 2021	Pension plans 2020	Pension plans 2019	Other benefit plans 2021	Other benefit plans 2020	Other benefit plans 2019
Change in benefit obligation						
Benefit obligation at beginning of year	**$ 10,349**	$ 9,707	$ 8,268	**$ 1,420**	$ 1,457	$ 1,374
Current service cost	**339**	369	291	**24**	28	26
Interest cost on benefit obligation	**269**	290	331	**56**	62	72
Employee contributions	**24**	26	25	**–**	–	–
Benefits paid	**(450)**	(467)	(770)	**(81)**	(75)	(96)
Actuarial loss (gain)	**(857)**	531	1,590	**(63)**	(17)	120
Past service cost	**37**	–	7	**(1)**	(7)	(9)
Business acquisition	**2**	–	(4)	**(2)**	(6)	1
Settlements	**(34)**	(115)	(2)	**(14)**	–	(45)
Foreign exchange	**(95)**	8	(29)	**(37)**	(22)	14
Benefit obligation at end of year	**$ 9,584**	$ 10,349	$ 9,707	**$ 1,302**	$ 1,420	$ 1,457
Change in fair value of assets						
Fair value of assets at beginning of year	**8,541**	8,439	8,037	**158**	193	240
Interest income on fair value of assets	**257**	268	331	**13**	15	23
Return on plan assets in excess of (less than) interest income on fair value of assets	**854**	46	634	**–**	(13)	(16)
Employer contributions	**405**	376	249	**73**	53	78
Employee contributions	**24**	26	25	**–**	–	–
Benefits paid	**(450)**	(467)	(770)	**(81)**	(75)	(96)
Administrative expenses	**(16)**	(14)	(17)	**–**	–	–
Business acquisition	**–**	–	–	**–**	–	–
Settlements	**(34)**	(105)	(2)	**(14)**	–	(46)
Foreign exchange	**(117)**	(28)	(48)	**(6)**	(15)	10
Fair value of assets at end of year	**$ 9,464**	$ 8,541	$ 8,439	**$ 143**	$ 158	$ 193
Funded status						
Excess (deficit) of fair value of assets over benefit obligation at end of year	**(120)**	(1,808)	(1,268)	**(1,159)**	(1,262)	(1,264)
Effect of asset limitation and minimum funding requirement (1)	**(85)**	(134)	(2)	**–**	–	–
Net asset (liability) at end of year	**$ (205)**	$ (1,942)	$ (1,270)	**$ (1,159)**	$ (1,262)	$ (1,264)
Recorded in:						
Other assets in the Bank's Consolidated Statement of Financial Position	**456**	260	422	**–**	–	–
Other liabilities in the Bank's Consolidated Statement of Financial Position	**(661)**	(2,202)	(1,692)	**(1,159)**	(1,262)	(1,264)
Net asset (liability) at end of year	**$ (205)**	$ (1,942)	$ (1,270)	**$ (1,159)**	$ (1,262)	$ (1,264)
Annual benefit expense						
Current service cost	**339**	369	291	**24**	28	26
Net interest expense (income)	**23**	22	–	**43**	47	49
Administrative expenses	**14**	17	14	**–**	–	–
Past service costs	**37**	–	7	**(1)**	(7)	(9)
Amount of settlement (gain) loss recognized	**–**	(10)	–	**–**	–	1
Remeasurement of other long-term benefits	**–**	–	–	**(6)**	–	(5)
Benefit expense (income) recorded in the Consolidated Statement of Income	**$ 413**	$ 398	$ 312	**$ 60**	$ 68	$ 62
Defined contribution benefit expense	**$ 102**	$ 89	$ 66	**$ 1**	$ 1	$ 3
Remeasurements						
(Return) on plan assets in excess of interest income on fair value of assets	**(854)**	(46)	(634)	**–**	13	17
Actuarial loss (gain) on benefit obligation	**(857)**	531	1,590	**(57)**	(17)	124
Change in the asset limitation	**(47)**	139	–	**–**	–	–
Remeasurements recorded in OCI	**$ (1,758)**	$ 624	$ 956	**$ (57)**	$ (4)	$ 141
Total benefit cost	**$ (1,243)**	$ 1,111	$ 1,334	**$ 4**	$ 65	$ 206
Additional details on actual return on assets and actuarial (gains) and losses						
Actual return on assets (net of administrative expenses)	**$ 1,095**	$ 300	$ 948	**$ 13**	$ 2	$ 7
Actuarial (gains) and losses from changes in demographic assumptions	**8**	(65)	(5)	**8**	(53)	(35)
Actuarial (gains) and losses from changes in financial assumptions	**(973)**	524	1,496	**(63)**	49	150
Actuarial (gains) and losses from changes in experience	**108**	72	99	**(8)**	(13)	5
Additional details on fair value of pension plan assets invested						
In Scotiabank securities (stock, bonds)	**60**	293	392	**–**	21	–
In property occupied by Scotiabank	**4**	4	4	**–**	–	–
Change in asset ceiling/onerous liability						
Asset ceiling /onerous liability at end of prior year	**134**	2	2	**–**	–	–
Interest expense	**11**	–	–	**–**	–	–
Remeasurements	**(47)**	139	–	**–**	–	–
Foreign exchange	**(13)**	(7)	–	**–**	–	–
Asset ceiling /onerous liability at end of year	**$ 85**	$ 134	$ 2	**$ –**	$ –	$ –

(1) The recognized asset is limited by the present value of economic benefits available from a reduction in future contributions to a plan and from the ability to pay plan expenses from the fund.

e) Maturity profile of the defined benefit obligation

The weighted average duration of the total benefit obligation at October 31, 2021 is 15.0 years (2020 – 15.9 years, 2019 – 15.7 years).

For the year ended October 31	Pension plans			Other benefit plans		
	2021	2020	2019	**2021**	2020	2019
Disaggregation of the benefit obligation (%)						
Canada						
Active members	**53%**	55%	53%	**4%**	6%	6%
Inactive and retired members	**47%**	45%	47%	**96%**	94%	94%
Total	**100%**	100%	100%	**100%**	100%	100%
Mexico						
Active members	**21%**	25%	25%	**43%**	49%	49%
Inactive and retired members	**79%**	75%	75%	**57%**	51%	51%
Total	**100%**	100%	100%	**100%**	100%	100%
United States						
Active members	**45%**	40%	42%	**40%**	34%	38%
Inactive and retired members	**55%**	60%	58%	**60%**	66%	62%
Total	**100%**	100%	100%	**100%**	100%	100%

f) Key assumptions (%)

The key weighted-average assumptions used by the Bank for the measurement of the benefit obligation and benefit expense for all of the Bank's principal plans are summarized as follows:

For the year ended October 31	Pension plans			Other benefit plans		
	2021	2020	2019	**2021**	2020	2019
Benefit obligation at end of year						
Discount rate – all plans	**3.73%**	3.08%	3.32%	**4.94%**	4.44%	4.71%
Discount rate – Canadian plans only	**3.50%**	2.80%	3.10%	**3.28%**	2.57%	2.98%
Rate of increase in future compensation[1]	**2.97%**	2.74%	2.70%	**4.30%**	4.31%	3.86%
Benefit expense (income) for the year						
Discount rate – All plans						
Discount rate for defined benefit obligations	**3.30%**	3.32%	4.35%	**4.44%**	4.71%	5.54%
Discount rate for net interest cost	**2.78%**	3.06%	4.09%	**4.13%**	4.54%	5.37%
Discount rate for service cost	**3.45%**	3.38%	4.41%	**4.71%**	4.83%	5.78%
Discount rate for interest on service cost	**2.96%**	3.20%	4.14%	**4.54%**	4.72%	5.67%
Discount rate – Canadian plans only						
Discount rate for defined benefit obligations	**3.05%**	3.10%	4.10%	**2.57%**	2.98%	3.96%
Discount rate for net interest cost	**2.47%**	2.80%	3.80%	**2.11%**	2.71%	3.70%
Discount rate for service cost	**3.16%**	3.10%	4.10%	**2.94%**	3.08%	4.07%
Discount rate for interest on service cost	**2.65%**	2.90%	3.80%	**2.66%**	2.89%	3.88%
Rate of increase in future compensation[1]	**2.74%**	2.70%	2.80%	**4.31%**	3.86%	3.83%
Health care cost trend rates at end of year						
Initial rate	**n/a**	n/a	n/a	**5.68%**	5.75%	5.80%
Ultimate rate	**n/a**	n/a	n/a	**4.75%**	4.72%	4.69%
Year ultimate rate reached	**n/a**	n/a	n/a	**2040**	2040	2040
Assumed life expectancy in Canada (years)						
Life expectancy at 65 for current pensioners – male	**23.5**	23.4	23.4	**23.5**	23.4	23.4
Life expectancy at 65 for current pensioners – female	**24.6**	24.5	24.5	**24.6**	24.5	24.5
Life expectancy at 65, for future pensioners currently aged 45 – male	**24.4**	24.4	24.3	**24.4**	24.4	24.3
Life expectancy at 65, for future pensioners currently aged 45 – female	**25.5**	25.4	25.3	**25.5**	25.4	25.3
Assumed life expectancy in Mexico (years)						
Life expectancy at 65 for current pensioners – male	**21.5**	21.3	21.3	**21.5**	21.3	21.3
Life expectancy at 65 for current pensioners – female	**23.9**	23.8	23.8	**23.9**	23.8	23.8
Life expectancy at 65, for future pensioners currently aged 45 – male	**21.6**	21.7	21.7	**21.6**	21.7	21.7
Life expectancy at 65, for future pensioners currently aged 45 – female	**24.0**	24.0	24.0	**24.0**	24.0	24.0
Assumed life expectancy in United States (years)						
Life expectancy at 65 for current pensioners – male	**21.8**	21.7	21.9	**21.8**	21.7	21.9
Life expectancy at 65 for current pensioners – female	**23.3**	23.1	23.3	**23.3**	23.1	23.3
Life expectancy at 65, for future pensioners currently aged 45 – male	**23.2**	23.1	23.4	**23.2**	23.1	23.4
Life expectancy at 65, for future pensioners currently aged 45 – female	**24.6**	24.5	24.9	**24.6**	24.5	24.9

(1) The weighted-average rates of increase in future compensation shown for other benefit plans do not include Canadian flexible post-retirement benefits plans established in fiscal 2005, as they are not impacted by future compensation increases.

g) Sensitivity analysis

The sensitivity analysis presented represents the impact of a change in a single assumption with other assumptions left unchanged. For purposes of the sensitivity analysis, the present value of the defined benefit obligation has been calculated using the projected unit credit method at the end of the reporting period, which is the same as that applied in calculating the defined benefit obligation recognized in the statement of financial position.

	Pension plans		Other benefit plans	
For the year ended October 31, 2021 ($ millions)	Benefit obligation	Benefit expense	Benefit obligation	Benefit expense
Impact of the following changes:				
1% decrease in discount rate	**$ 1,626**	**$ 90**	**$ 177**	**$ 4**
0.25% increase in rate of increase in future compensation	**82**	**5**	**1**	**–**
1% increase in health care cost trend rate	**n/a**	**n/a**	**120**	**12**
1% decrease in health care cost trend rate	**n/a**	**n/a**	**(98)**	**(9)**
1 year increase in Canadian life expectancy	**182**	**10**	**22**	**1**
1 year increase in Mexican life expectancy	**3**	**–**	**4**	**–**
1 year increase in the United States life expectancy	**4**	**–**	**4**	**–**

h) Assets

The Bank's principal pension plans' assets are generally invested with the long-term objective of maximizing overall expected returns, at an acceptable level of risk relative to the benefit obligation. A key factor in managing long-term investment risk is asset mix. Investing the pension assets across different asset classes and geographic regions helps to mitigate risk and to minimize the impact of declines in any single asset class, particular region or type of investment. Investment managers – including related-party managers – are typically hired and assigned specific mandates within each asset class.

Pension plan asset mix guidelines are set for the long term, and are documented in each plan's investment policy. Asset mix policy typically also reflects the nature of the plan's benefit obligations. Legislation places certain restrictions on asset mix – for example, there are usually limits on concentration in any one investment. Other concentration and quality limits are also set forth in the investment policies. Derivatives are not a significant component of the investment strategy and cannot be used without specific authorization; currently, the main use of derivatives is for currency hedging. Asset mix guidelines are reviewed at least once each year, and adjusted, where appropriate, based on market conditions and opportunities. However, large asset class shifts are not common, and typically reflect a change in the pension plan's situation (e.g. plan amendments) and/or in the investment strategy. Actual asset mix is reviewed regularly, and rebalancing back to target asset mix is considered – as needed – generally on a semi-annual basis. The Bank's other benefit plans are generally not funded, with the exception of certain programs in Mexico.

The tables below show the weighted-average actual and target asset allocations for the Bank's principal plans at October 31, by asset category.

	Pension plans			Other benefit plans		
Asset category %	**Actual 2021**	Actual 2020	Actual 2019	**Actual 2021**	Actual 2020	Actual 2019
Cash and cash equivalents	**4%**	2%	3%	**–%**	1%	1%
Equity investments						
Quoted in an active market	**34%**	29%	33%	**42%**	40%	42%
Non quoted	**11%**	10%	10%	**–%**	–%	–%
	45%	39%	43%	**42%**	40%	42%
Fixed income investments						
Quoted in an active market	**6%**	5%	13%	**58%**	59%	57%
Non quoted	**35%**	41%	30%	**–%**	–%	–%
	41%	46%	43%	**58%**	59%	57%
Property						
Quoted in an active market	**–%**	–%	–%	**–%**	–%	–%
Non quoted	**1%**	1%	1%	**–%**	–%	–%
	1%	1%	1%	**–%**	–%	–%
Other						
Quoted in an active market	**–%**	3%	–%	**–%**	–%	–%
Non quoted	**9%**	9%	10%	**–%**	–%	–%
	9%	12%	10%	**–%**	–%	–%
Total	**100%**	100%	100%	**100%**	100%	100%

Target asset allocation at October 31, 2021 Asset category %	Pension plans	Other benefit plans
Cash and cash equivalents	**–%**	**–%**
Equity investments	**42%**	**44%**
Fixed income investments	**44%**	**56%**
Property	**1%**	**–%**
Other	**13%**	**–%**
Total	**100%**	**100%**

29 Operating Segments

Scotiabank is a diversified financial services institution that provides a wide range of financial products and services to retail, commercial and corporate customers around the world. The Bank's businesses are grouped into four business lines: Canadian Banking, International Banking, Global Banking and Markets and Global Wealth Management. Other smaller business segments are included in the Other segment. The results of these business segments are based upon the internal financial reporting systems of the Bank. The accounting policies used in these segments are generally consistent with those followed in the preparation of the consolidated financial statements as disclosed in Note 3. Notable accounting measurement differences are:

- tax normalization adjustments related to the gross-up of income from associated corporations. This adjustment normalizes the effective tax rate in the divisions to better present the contribution of the associated companies to the divisional results.
- the grossing up of tax-exempt net interest income and non-interest income to an equivalent before-tax basis for those affected segments.

These differences in measurement enable comparison of net interest income and non-interest income arising from taxable and tax-exempt sources.

Changes to operating segments effective November 1, 2019

Effective November 1, 2019, Global Wealth Management became a fourth business segment. The Canadian and International businesses of Global Wealth results that were previously included in Canadian Banking's and International Banking's results, respectively, are included in Global Wealth Management results. The historical comparative segment financial information has been restated to reflect this realignment. The restated historical segment financial information of Canadian Banking, International Banking and Other did not impact the Bank's previously reported consolidated financial information.

The aggregate number of cash-generating units (CGUs) for the purposes of goodwill impairment assessment as of November 1, 2019 has increased to 5 (October 31, 2019 – 4 CGUs) with the creation of the new Global Wealth Management CGU (GWM-CGU). This has resulted in the allocation of $3.4 billion of goodwill related to the wealth business from the Canadian Banking CGU to the GWM-CGU. As at November 1, 2019, the Bank has determined that goodwill allocated to GWM-CGU is not impaired.

Scotiabank's results, and average assets and liabilities, allocated by these operating segments, are as follows:

For the year ended October 31, 2021

Taxable equivalent basis ($ millions)	Canadian Banking	International Banking	Global Wealth Management	Global Banking and Markets	Other[1][2]	Total
Net interest income[3]	$ 8,030	$ 6,625	$ 628	$ 1,436	$ 242	$ 16,961
Non-interest income[4][5]	2,868	2,993	4,752	3,587	91	14,291
Total revenues	10,898	9,618	5,380	5,023	333	31,252
Provision for credit losses	333	1,574	2	(100)	(1)	1,808
Depreciation and amortization	618	517	178	156	42	1,511
Non-interest expenses	4,333	4,737	3,077	2,302	658	15,107
Income tax expense	1,459	635	549	590	(362)	2,871
Net income	$ 4,155	$ 2,155	$ 1,574	$ 2,075	$ (4)	$ 9,955
Net income attributable to non-controlling interests in subsidiaries	–	332	9	–	(10)	331
Net income attributable to equity holders of the Bank	4,155	1,823	1,565	2,075	6	9,624
Represented by:						
Net income attributable to equity holders of the Bank – relating to divested operations[6]	–	7	–	–	–	7
Net income attributable to equity holders of the Bank – relating to operations other than divested operations	4,155	1,816	1,565	2,075	6	9,617
Average assets ($ billions)	381	194	29	401	152	1,157
Average liabilities ($ billions)	313	149	45	385	193	1,085

(1) Includes all other smaller operating segments and corporate adjustments, such as the elimination of the tax-exempt income gross-up reported in net interest income and non-interest income and provision for income taxes for the year ended October 31, 2021 amounting to $310 to arrive at the amounts reported in the Consolidated Statement of Income, differences in the actual amount of costs incurred and charged to the operating segments.
(2) Net income attributable to equity holders includes restructuring and other provisions of $129 (pre-tax $188).
(3) Interest income is reported net of interest expense as management relies primarily on net interest income as a performance measure.
(4) Card revenues and Banking services fees are mainly earned in Canadian and International Banking. Mutual fund, Brokerage fees and Investment management and trust fees are primarily earned in Global Wealth Management. Underwriting and other advisory fees are predominantly earned in Global Banking and Markets.
(5) Includes net income (on a taxable equivalent basis) from investments in associated corporations for Canadian Banking – $87; International Banking – $206; Global Wealth Management – $17 and Other – $29.
(6) Refer to Note 37 for closed divestitures impacting the current year.

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For the year ended October 31, 2020

Taxable equivalent basis ($ millions)	Canadian Banking	International Banking	Global Wealth Management	Global Banking and Markets	Other[1][2]	Total
Net interest income[3]	$ 7,838	$ 7,603	$ 575	$ 1,435	$ (131)	$ 17,320
Non-interest income[4][5]	2,461	3,207	4,009	3,947	392	14,016
Total revenues	10,299	10,810	4,584	5,382	261	31,336
Provision for credit losses	2,073	3,613	7	390	1	6,084
Depreciation and amortization	633	525	170	156	62	1,546
Non-interest expenses	4,178	5,418	2,708	2,317	689	15,310
Income tax expense	879	182	437	564	(519)	1,543
Net income	$ 2,536	$ 1,072	$ 1,262	$ 1,955	$ 28	$ 6,853
Net income attributable to non-controlling interests in subsidiaries	–	92	10	–	(27)	75
Net income attributable to equity holders of the Bank	2,536	980	1,252	1,955	55	6,778
Represented by:						
Net income attributable to equity holders of the Bank – relating to divested operations[6]	–	70	–	–	–	70
Net income attributable to equity holders of the Bank – relating to operations other than divested operations	2,536	910	1,252	1,955	55	6,708
Average assets ($ billions)	359	206	26	412	158	1,161
Average liabilities ($ billions)	277	155	39	379	240	1,090

(1) Includes all other smaller operating segments and corporate adjustments, such as the elimination of the tax-exempt income gross-up reported in net interest income and non-interest income and provision for income taxes for the year ended October 31, 2020 amounting to $275 to arrive at the amounts reported in the Consolidated Statement of Income, differences in the actual amount of costs incurred and charged to the operating segments.
(2) Net income attributable to equity holders includes Net gain on divestitures of $54 (pre-tax $298).
(3) Interest income is reported net of interest expense as management relies primarily on net interest income as a performance measure.
(4) Card revenues and Banking services fees are mainly earned in Canadian and International Banking. Mutual fund, Brokerage fees and Investment management and trust fees are primarily earned in Global Wealth Management. Underwriting and other advisory fees are predominantly earned in Global Banking and Markets.
(5) Includes net income (on a taxable equivalent basis) from investments in associated corporations for Canadian Banking – $6; International Banking – $243; Global Wealth Management – $13 and Other – $(70).
(6) Refer to Note 37 for closed divestitures impacting the current year.

For the year ended October 31, 2019

Taxable equivalent basis ($ millions)	Canadian Banking	International Banking	Global Wealth Management	Global Banking and Markets	Other[1][2]	Total
Net interest income[3]	$ 7,848	$ 8,353	$ 564	$ 1,396	$ (984)	$ 17,177
Non-interest income[4][5]	2,616	4,366	3,937	3,084	(146)	13,857
Total revenues	10,464	12,719	4,501	4,480	(1,130)	31,034
Provision for credit losses	972	2,076	–	(22)	1	3,027
Depreciation and amortization	441	379	126	91	16	1,053
Non-interest expenses	4,331	6,217	2,779	2,372	(15)	15,684
Income tax expense	1,232	909	412	505	(586)	2,472
Net income	$ 3,488	$ 3,138	$ 1,184	$ 1,534	$ (546)	$ 8,798
Net income attributable to non-controlling interests in subsidiaries	–	373	18	–	17	408
Net income attributable to equity holders of the Bank	3,488	2,765	1,166	1,534	(563)	8,390
Represented by:						
Net income attributable to equity holders of the Bank – relating to divested operations[6]	–	655	17	–	–	672
Net income attributable to equity holders of the Bank – relating to operations other than divested operations	3,488	2,110	1,149	1,534	(563)	7,718
Average assets ($ billions)	340	201	25	372	118	1,056
Average liabilities ($ billions)	255	153	32	304	243	987

(1) Includes all other smaller operating segments and corporate adjustments, such as the elimination of the tax-exempt income gross-up reported in net interest income and non-interest income and provision for income taxes for the year ended October 31, 2019 amounting to $181 to arrive at the amounts reported in the Consolidated Statement of Income, differences in the actual amount of costs incurred and charged to the operating segments.
(2) Net income attributable to equity holders includes Net loss on divestitures of $08 (pre-tax $148).
(3) Interest income is reported net of interest expense as management relies primarily on net interest income as a performance measure.
(4) Card revenues and Banking services fees are mainly earned in Canadian and International Banking. Mutual fund, Brokerage fees and Investment management and trust fees are primarily earned in Global Wealth Management. Underwriting and other advisory fees are predominantly earned in Global Banking and Markets.
(5) Includes net income (on a taxable equivalent basis) from investments in associated corporations for Canadian Banking – $65; International Banking – $753; Global Wealth Management – $10 and Other – $(178).
(6) Refer to Note 37 for closed divestitures impacting the current year.

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Geographical segmentation

The following table summarizes the Bank's financial results by geographic region. Revenues and expenses which have not been allocated back to specific operating business lines are reflected in corporate adjustments.

For the year ended October 31, 2021 ($ millions)[1]	Canada	United States	Mexico	Peru	Chile	Colombia	Caribbean and Central America	Other International	Total
Net interest income	$ 9,182	$ 742	$ 1,668	$ 1,186	$ 1,507	$ 692	$ 1,345	$ 639	$ 16,961
Non-interest income[1]	9,190	953	714	531	666	383	664	1,190	14,291
Total revenues[2]	18,372	1,695	2,382	1,717	2,173	1,075	2,009	1,829	31,252
Provision for credit losses	255	(33)	334	586	205	195	221	45	1,808
Non-interest expenses	9,627	915	1,202	662	943	682	1,343	1,244	16,618
Income tax expense	1,909	120	184	104	204	80	103	167	2,871
Subtotal	6,581	693	662	365	821	118	342	373	9,955
Net income attributable to non-controlling interests in subsidiaries	(10)	–	14	2	200	48	77	–	331
Net income attributable to equity holders of the Bank	$ 6,591	$ 693	$ 648	$ 363	$ 621	$ 70	$ 265	$ 373	$ 9,624
Total average assets ($ billions)	$ 695	$ 167	$ 41	$ 27	$ 53	$ 13	$ 30	$ 131	$ 1,157

(1) Includes net income from investments in associated corporations for Canada – $117, Peru – $10, Chile – $(15), Caribbean and Central America – $46, and Other International – $181.
(2) Revenues are attributed to countries based on where services are performed or assets are recorded.

For the year ended October 31, 2020 ($ millions)[1]	Canada	United States	Mexico	Peru	Chile	Colombia	Caribbean and Central America	Other International	Total
Net interest income	$ 8,515	$ 763	$ 1,661	$ 1,705	$ 1,415	$ 812	$ 1,734	$ 715	$ 17,320
Non-interest income[1]	8,085	1,375	724	605	677	449	753	1,348	14,016
Total revenues[2]	16,600	2,138	2,385	2,310	2,092	1,261	2,487	2,063	31,336
Provision for credit losses	2,271	128	644	971	639	666	570	195	6,084
Non-interest expenses	8,952	1,080	1,298	827	973	813	1,589	1,324	16,856
Income tax expense	967	192	98	116	78	(74)	45	121	1,543
Subtotal	4,410	738	345	396	402	(144)	283	423	6,853
Net income attributable to non-controlling interests in subsidiaries	(28)	–	7	16	91	(87)	76	–	75
Net income attributable to equity holders of the Bank	$ 4,438	$ 738	$ 338	$ 380	$ 311	$ (57)	$ 207	$ 423	$ 6,778
Total average assets ($ billions)	$ 689	$ 164	$ 41	$ 31	$ 52	$ 14	$ 35	$ 135	$ 1,161

(1) Includes net income from investments in associated corporations for Canada – $(15), Peru – $5, Chile – $3, Caribbean and Central America – $55, and Other International – $194.
(2) Revenues are attributed to countries based on where services are performed or assets are recorded.

For the year ended October 31, 2019 ($ millions)[1][2]	Canada	United States	Mexico	Peru	Chile	Colombia	Caribbean and Central America	Other International	Total
Net interest income	$ 7,630	$ 720	$ 1,684	$ 1,576	$ 1,613	$ 1,017	$ 2,143	$ 794	$ 17,177
Non-interest income[1]	7,304	1,189	671	790	806	567	1,048	1,482	13,857
Total revenues[3]	14,934	1,909	2,355	2,366	2,419	1,584	3,191	2,276	31,034
Provision for credit losses	981	(16)	335	523	436	362	352	54	3,027
Non-interest expenses	8,275	870	1,306	846	1,166	920	1,933	1,421	16,737
Income tax expense	1,082	267	121	248	185	117	324	128	2,472
Subtotal	4,596	788	593	749	632	185	582	673	8,798
Net income attributable to non-controlling interests in subsidiaries	1	–	14	(11)	179	124	101	–	408
Net income attributable to equity holders of the Bank	$ 4,595	$ 788	$ 579	$ 760	$ 453	$ 61	$ 481	$ 673	$ 8,390
Total average assets ($ billions)	$ 607	$ 149	$ 37	$ 28	$ 51	$ 13	$ 42	$ 129	$ 1,056

(1) Includes net income from investments in associated corporations for Canada – $(114), Peru – $7, Caribbean and Central America – $59, and Other International – $867.
(2) Prior period amounts have been restated to conform with current period presentation.
(3) Revenues are attributed to countries based on where services are performed or assets are recorded.

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30 Related Party Transactions

Compensation of key management personnel of the Bank

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Bank, directly or indirectly, and comprise the directors of the Bank, the President and Chief Executive Officer, certain direct reports of the President and Chief Executive Officer and Group Heads.

For the year ended October 31 ($ millions)	2021	2020
Salaries and cash incentives[1]	**$ 21**	$ 19
Equity-based payment[2]	**30**	30
Pension and other benefits[1]	**3**	6
Total	**$ 54**	$ 55

(1) Expensed during the year.
(2) Awarded during the year.

Directors can use some or all of their director fees earned to buy common shares of the Bank at market rates through the Director's Share Purchase Plan. Non-officer directors may elect to receive all or a portion of their fees in the form of deferred stock units which vest immediately. Refer to Note 26 for further details of these plans.

Loans and deposits of key management personnel

As at October 31 ($ millions)	2021	2020
Loans	**$ 11**	$ 15
Deposits	**$ 5**	$ 11

The Bank's committed credit exposure to companies controlled by directors totaled $252.8 million as at October 31, 2021 (2020 – $177.6 million), while actual utilized amounts were $189.6 million (2020 – $115.9 million).

Transactions with associates and joint ventures

In the ordinary course of business, the Bank provides normal banking services and enters into transactions with its associated and other related corporations on terms similar to those offered to non-related parties. If these transactions are eliminated on consolidation, they are not disclosed as related party transactions. Transactions between the Bank and its associated companies and joint ventures also qualify as related party transactions and were recorded as follows:

As at and for the year ended October 31 ($ millions)	2021	2020
Net income / (loss)	**$ (85)**	$ (75)
Loans	**191**	203
Deposits[1]	**229**	234
Guarantees and commitments	**154**	23

(1) Prior period amount has been restated to conform with current period presentation.

Scotiabank principal pension plan

The Bank manages assets of $4.7 billion (2020 – $4.1 billion) which is a portion of the Scotiabank principal pension plan assets and earned $6.6 million (2020 – $7.2 million) in fees.

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31 Principal Subsidiaries and Non-Controlling Interests in Subsidiaries

(a) Principal subsidiaries[1]

The following table presents certain operating subsidiaries the Bank owns, directly or indirectly. All of these subsidiaries are included in the Bank's consolidated financial statements.

As at October 31 ($ millions)	Principal office	Carrying value of shares 2021	2020
Canadian			
1832 Asset Management L.P.	Toronto, Ontario	**$ 2,680**	$ 1,562
BNS Investments Inc.	Toronto, Ontario	**15,200**	14,510
Montreal Trust Company of Canada	Montreal, Quebec		
The Bank of Nova Scotia Trust Company	Toronto, Ontario	**185**	155
National Trust Company	Stratford, Ontario	**366**	359
Roynat Inc.	Calgary, Alberta	**518**	409
Scotia Capital Inc.	Toronto, Ontario	**2,818**	2,338
Scotia Dealer Advantage Inc.	Burnaby, British Columbia	**729**	614
Scotia Mortgage Corporation	Toronto, Ontario	**750**	760
Scotia Securities Inc.	Toronto, Ontario	**53**	49
Tangerine Bank	Toronto, Ontario	**3,405**	3,264
Jarislowsky, Fraser Limited	Montreal, Quebec	**1,027**	957
MD Financial Management Inc.	Ottawa, Ontario	**2,761**	2,645
International			
Scotiabank Colpatria S.A. (51%)	Bogota, Colombia	**995**	1,004
BNS International (Bahamas) Limited	Nassau, Bahamas	**17,543**	18,510
BNS Asia Limited	Singapore		
The Bank of Nova Scotia Trust Company (Bahamas) Limited	Nassau, Bahamas		
Grupo BNS de Costa Rica, S.A.	San Jose, Costa Rica		
Scotiabank & Trust (Cayman) Ltd.	Grand Cayman, Cayman Islands		
Scotiabank (Bahamas) Limited	Nassau, Bahamas		
Scotiabank (Ireland) Designated Activity Company	Dublin, Ireland		
Grupo Financiero Scotiabank Inverlat, S.A. de C.V. (97.4%)	Mexico City, Mexico	**4,714**	4,320
Nova Scotia Inversiones Limitada	Santiago, Chile	**5,173**	5,255
Scotiabank Chile S.A. (83.03%)	Santiago, Chile		
Scotia Holdings (US) Inc.[2]	New York, New York		
Scotia Capital (USA) Inc.[2][3]	New York, New York		
Scotiabank Brasil S.A. Banco Multiplo	Sao Paulo, Brazil	**280**	282
Scotiabank Caribbean Holdings Ltd.	Bridgetown, Barbados	**1,630**	1,842
Scotia Group Jamaica Limited (71.8%)	Kingston, Jamaica		
The Bank of Nova Scotia Jamaica Limited	Kingston, Jamaica		
Scotiabank Trinidad and Tobago Limited (50.9%)	Port of Spain, Trinidad and Tobago		
Scotiabank (Panama) S.A.	Panama City, Panama		
Scotiabank Uruguay S.A.	Montevideo, Uruguay	**440**	472
Scotiabank Europe plc	London, United Kingdom	**2,273**	2,505
Scotia Peru Holdings S.A.	Lima, Peru	**4,277**	5,677
Scotiabank Peru S.A.A. (98.05%)	Lima, Peru		
Profuturo AFP S.A.	Lima, Peru		
Scotiabank Republica Dominicana, S.A. – Banco Multiple (99.80%)	Santo Domingo, Dominican Republic	**775**	808
Scotiabank (Barbados) Limited	Bridgetown, Barbados	**235**	219

(1) The Bank (or immediate parent of an entity) owns 100% of the outstanding voting shares of each subsidiary unless otherwise noted.
(2) The carrying value of this subsidiary is included with that of its parent, BNS Investments Inc.
(3) The carrying value of this subsidiary is included with that of its parent, Scotia Holdings (US) Inc.

Subsidiaries may have a different reporting date from that of the Bank of October 31. Dates may differ for a variety of reasons including local reporting requirements or tax laws. In accordance with our accounting policies, for the purpose of inclusion in the consolidated financial statements of the Bank, adjustments are made where significant for subsidiaries with different reporting dates.

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(b) Non-controlling interests in subsidiaries

The Bank's significant non-controlling interests in subsidiaries are comprised of the following entities:

	As at and for the year ended				
	2021			2020	
	Non-controlling interest %	Non-controlling interests in subsidiaries	Dividends paid to non-controlling interest	Non-controlling interests in subsidiaries	Dividends paid to non-controlling interest
Scotiabank Chile S.A.[1]	**16.97%[2]**	**$ 790**	**$ 55**	$ 1,050	$ 71
Scotiabank Colpatria S.A.[3]	**49.0%**	**405**	**–**	387	13
Scotia Group Jamaica Limited	**28.2%**	**261**	**12**	288	14
Scotiabank Trinidad and Tobago Limited	**49.1%**	**367**	**56**	381	50
Other	**0.1% – 49.0%[4]**	**267**	**–**	270	–
Total		**$ 2,090**	**$ 123**	$ 2,376	$ 148

(1) Non-controlling interest holders for Scotiabank Chile S.A. have the right at any time to sell all or a portion of their holdings to the Bank at fair market value that can be settled at the Bank's discretion, by issuance of common shares or cash.
(2) The Bank increased its ownership in Scotiabank Chile S.A. in 2021 by acquiring an additional 7% stake from the non-controlling shareholder. Refer to Note 37 for details.
(3) Non-controlling interest holders for Scotiabank Colpatria S.A. have a right to sell their holding to the Bank after the end of 7th anniversary (January 17, 2019) and at subsequent pre-agreed intervals, into the future, at fair market value that can be settled at the Bank's discretion, by issuance of common shares or cash.
(4) Range of non-controlling interest % for other subsidiaries.

Summarized financial information of the Bank's subsidiaries with significant non-controlling interests are as follows:

	As at and for the year ended October 31, 2021				As at and for the year ended October 31, 2020			
($ millions)	Revenue	Total comprehensive income (loss)	Total assets	Total liabilities	Revenue	Total comprehensive income (loss)	Total assets	Total liabilities
Total	**$ 3,875**	**$ 6**	**$ 86,317**	**$ 78,973**	$ 4,098	$ (136)	$ 89,808	$ 82,107

32 Interest Income and Expense

For the year ended October 31 ($ millions)	2021		2020		2019	
	Interest income	Interest expense	Interest income	Interest expense	Interest income	Interest expense
Measured at amortized cost[1]	**$ 23,831**	**$ 7,844**	$ 28,113	$ 12,211	$ 30,996	$ 15,575
Measured at FVOCI[1]	**716**	**–**	1,060	–	1,440	–
	24,547	**7,844**	29,173	12,211	32,436	15,575
Other	**439[2]**	**181[3]**	539[2]	181[3]	348[2]	32
Total	**$ 24,986**	**$ 8,025**	$ 29,712	$ 12,392	$ 32,784	$ 15,607

(1) The interest income/expense on financial assets/liabilities are calculated using the effective interest method.
(2) Includes dividend income on equity securities.
(3) The interest on lease liabilities was $105 (2020 – $117). Amounts for the years ended 2021 and 2020 were prepared in accordance with IFRS 16, prior periods amounts have not been restated.

33 Trading Revenues

The following table presents details of trading revenues.

For the fiscal years ($ millions)	2021	2020	2019
Trading-related revenue[1]			
Net interest income	**$ 136**	$ 112	$ 67
Non-interest income			
Trading revenues	**2,033**	2,411	1,488
Other fees and commissions	**185**	205	379
Total trading-related revenue	**$ 2,354**	$ 2,728	$ 1,934

(1) Trading-related revenue consists of net interest income and non-interest income. Included are unrealized gains and losses on security positions held, realized gains and losses from the purchase and sale of securities, fees and commissions from securities borrowing and lending activities, and gains and losses on trading derivatives. Underwriting and other advisory fees, which are shown separately in the Consolidated Statement of Income, are excluded.

34 Earnings Per Share

For the year ended October 31 ($ millions)	2021	2020	2019
Basic earnings per common share			
Net income attributable to common shareholders	**$ 9,391**	$ 6,582	$ 8,208
Weighted average number of common shares outstanding (millions)	**1,214**	1,212	1,222
Basic earnings per common share[1] (in dollars)	**$ 7.74**	$ 5.43	$ 6.72
Diluted earnings per common share			
Net income attributable to common shareholders	**$ 9,391**	$ 6,582	$ 8,208
Dilutive impact of share-based payment options and others[2]	**43**	6	142
Net income attributable to common shareholders (diluted)	**$ 9,434**	$ 6,588	$ 8,350
Weighted average number of common shares outstanding (millions)	**1,214**	1,212	1,222
Dilutive impact of share-based payment options and others[2] (millions)	**11**	31	29
Weighted average number of diluted common shares outstanding (millions)	**1,225**	1,243	1,251
Diluted earnings per common share[1] (in dollars)	**$ 7.70**	$ 5.30	$ 6.68

(1) Earnings per share calculations are based on full dollar and share amounts.
(2) Certain tandem stock appreciation rights or options as well as acquisition-related put/call options that the Bank may settle at its own discretion by issuing common shares were not included in the calculation of diluted earnings per share as they were anti-dilutive.

35 Guarantees, Commitments and Pledged Assets

(a) Guarantees

The Bank enters into various types of guarantees and indemnifications in the normal course of business. Guarantees represent an undertaking to another party to make a payment to that party when certain specified events occur. The various guarantees and indemnifications that the Bank provides with respect to its customers and other third parties are presented below:

As at October 31 ($ millions)	2021 Maximum potential amount of future payments[1]	2020 Maximum potential amount of future payments[1]
Standby letters of credit and letters of guarantee	**$ 37,277**	$ 34,836
Liquidity facilities	**4,942**	4,248
Derivative instruments	**4,203**	4,866
Indemnifications	**1,306**	1,390

(1) The maximum potential amount of future payments represents those guarantees that can be quantified and excludes other guarantees that cannot be quantified. As many of these guarantees will not be drawn upon and the maximum potential amount of future payments listed above does not consider the possibility of recovery under recourse or collateral provisions, the above amounts are not indicative of future cash requirements, credit risk, or the Bank's expected losses from these arrangements.

(i) Standby letters of credit and letters of guarantee

Standby letters of credit and letters of guarantee are irrevocable undertakings by the Bank on behalf of a customer, to make payments to a third party in the event that the customer is unable to meet its obligations to the third party. Generally, the term of these guarantees does not exceed four years. The types and amounts of collateral security held by the Bank for these guarantees is generally the same as for loans. As at October 31, 2021, nil (2020 – $4 million) was included in other liabilities in the Consolidated Statement of Financial Position with respect to these guarantees.

(ii) Liquidity facilities

The Bank's backstop liquidity facilities are committed liquidity and provided to asset-backed commercial paper conduits, administered by the Bank. These facilities generally provide an alternative source of financing in the event market disruption prevents the conduit from issuing commercial paper or, in some cases, when certain specified conditions or performance measures are not met. These facilities generally have a term of up to three years.

(iii) Derivative instruments

The Bank enters into written credit derivative contracts under which a counterparty is compensated for losses on a specified referenced asset, typically a loan or bond, if certain events occur. The Bank also enters into written option contracts under which a counterparty is granted the right, but not the obligation, to sell a specified quantity of a financial instrument at a pre-determined price on or before a set date. These written option contracts are normally referenced to interest rates, foreign exchange rates, commodity prices or equity prices. Typically, a corporate or government entity is the counterparty to the written credit derivative and option contracts that meet the characteristics of guarantees described above. The maximum potential amount of future payments disclosed in the table above relates to written credit derivatives, puts and floors. However, these amounts exclude certain derivatives contracts, such as written caps, as the nature of these contracts prevents quantification of the maximum potential amount of future payments. As at October 31, 2021, $291 million (2020 – $805 million) was included in derivative instrument liabilities in the Consolidated Statement of Financial Position with respect to these derivative instruments.

(iv) Indemnifications

In the ordinary course of business, the Bank enters into many contracts which contain indemnification provisions, such as purchase contracts, service agreements, trademark licensing agreements, director / officer contracts, escrow arrangements, sales of assets or businesses, outsourcing agreements, leasing arrangements, clearing system arrangements, securities lending agency agreements and structured transactions. The Bank cannot estimate the maximum potential future amount that may be payable. The Bank has not made any significant payments under such indemnifications. Historically, the Bank has not made any significant payments under these indemnities. As at October 31, 2021, $1 million (2020 – $1 million) was included in other liabilities in the Consolidated Statement of Financial Position with respect to indemnifications.

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(b) Other indirect commitments

In the normal course of business, various other indirect commitments are outstanding which are not reflected on the Consolidated Statement of Financial Position. These may include:

- Commercial letters of credit which require the Bank to honour drafts presented by a third-party when specific activities are completed;
- Commitments to extend credit which represent undertakings to make credit available in the form of loans or other financings for specific amounts and maturities, subject to specific conditions;
- Securities lending transactions under which the Bank, acting as principal or agent, agrees to lend securities to a borrower. The borrower must fully collateralize the security loan at all times. The market value of the collateral is monitored relative to the amounts due under the agreements, and where necessary, additional collateral is obtained; and
- Security purchase commitments which require the Bank to fund future investments.

These financial instruments are subject to normal credit standards, financial controls and monitoring procedures.

The table below provides a detailed breakdown of the Bank's other indirect commitments expressed in terms of the contractual amounts of the related commitment or contract which are not reflected on the Consolidated Statement of Financial Position.

As at October 31 ($ millions)	2021	2020
Commercial letters of credit	**$ 1,320**	$ 682
Commitments to extend credit[1]		
Original term to maturity of one year or less	**74,053**	85,997
Original term to maturity of more than one year	**165,726**	149,377
Securities lending	**59,506**	53,082
Securities purchase and other commitments	**1,040**	1,095
Total	**$ 301,645**	$ 290,233

(1) Includes liquidity facilities.

(c) Assets pledged and repurchase agreements

In the ordinary course of business, securities and other assets are pledged against liabilities. As well, securities are sold under repurchase agreements. The carrying value of pledged assets and details of related activities are shown below.

As at October 31 ($ millions)	2021	2020
Assets pledged to:		
Bank of Canada[1]	**$ 184**	$ 168
Foreign governments and central banks[1]	**2,589**	4,165
Clearing systems, payment systems and depositories[1]	**1,345**	1,353
Assets pledged in relation to exchange-traded derivative transactions	**6,105**	5,356
Assets pledged in relation to over-the-counter derivative transactions	**16,018**	16,997
Assets pledged as collateral related to securities borrowing and lending	**160,794**	136,193
Assets pledged in relation to covered bond program (Note 15)[2]	**34,683**	31,484
Assets pledged in relation to other securitization programs (Note 15)	**2,680**	4,600
Assets pledged under CMHC programs (Note 14)	**26,932**	30,134
Other	**1,140**	1,420
Total assets pledged	**$ 252,470**	$ 231,870
Obligations related to securities sold under repurchase agreements[3]	**100,083**	121,918
Total[4]	**$ 352,553**	$ 353,788

(1) Includes assets pledged in order to participate in clearing and payment systems and depositories, or pledged to have access to the facilities of central banks in foreign jurisdictions.
(2) Excludes mortgages related to covered bonds held by the Bank or pledged to the Bank of Canada as part of its term repo program.
(3) Includes the Bank of Canada term repo program.
(4) Includes assets that have been received from counterparties through normal course of business in securities financing and derivative transactions.

(d) Other executory contracts

Effective July 2018, the Bank has entered into an $800 million contract for naming rights of an arena for 20 years.

The Bank and its subsidiaries have also entered into other long-term executory contracts, relating to outsourced services. The significant outsourcing arrangements have variable pricing based on utilization and are cancellable with notice.

36 Financial Instruments – Risk Management

The Bank's principal business activities result in a balance sheet that consists primarily of financial instruments. In addition, the Bank uses derivative financial instruments for both trading and hedging purposes. The principal financial risks that arise from transacting financial instruments include credit risk, liquidity risk and market risk. The Bank's framework to monitor, evaluate and manage these risks is consistent with that in place as at October 31, 2021:

- extensive risk management policies define the Bank's risk appetite, set the limits and controls within which the Bank and its subsidiaries can operate, and reflect the requirements of regulatory authorities. These policies are approved by the Bank's Board of Directors, either directly or through the Risk Committee of the Board, (the Board);
- guidelines are developed to clarify risk limits and conditions under which the Bank's risk policies are implemented;
- processes are implemented to identify, evaluate, document, report and control risk. Standards define the breadth and quality of information required to make a decision; and
- compliance with risk policies, limits and guidelines is measured, monitored and reported to ensure consistency against defined goals.

Further details on the fair value of financial instruments and how these amounts were determined are provided in Note 7. Note 10 provides details on the terms and conditions of the Bank's derivative financial instruments including notional amounts, remaining term to maturity, credit risk, and fair values of derivatives used in trading and hedging activities.

(a) Credit risk

Credit risk is the risk of loss resulting from the failure of a borrower or counterparty to honour its financial or contractual obligations to the Bank. The Bank's Credit Risk Appetite and Credit Risk Policy are developed by its Global Risk Management (GRM) department and limits are reviewed and approved by the Board on an annual and biennial basis, respectively. The Credit Risk Appetite defines target markets and risk tolerances that are developed at an all-Bank level, and then further refined at the business line level. The objectives of the Credit Risk Appetite are to ensure that, for the Bank, including the individual business lines:

- target markets and product offerings are well defined;
- the risk parameters for new underwritings and for the portfolios as a whole are clearly specified; and
- transactions, including origination, syndication, loan sales and hedging, are managed in a manner to ensure the goals for the overall portfolio are met.

The Credit Risk Policy sets out, among other things, the credit risk rating systems and associated parameter estimates, the delegation of authority for granting credit, and the calculation of allowance for credit losses. It forms an integral part of enterprise-wide policies and procedures that encompass governance, risk management and control structure.

The Bank's credit risk rating systems are designed to support the determination of key credit risk parameter estimates which measure credit and transaction risk. For non-retail exposures, parameters are associated with each credit facility through the assignment of borrower and facility ratings. Borrower risk is evaluated using methodologies that are specific to particular industry sectors and/or business lines. The risk associated with facilities of a given borrower is assessed by considering the facilities' structural and collateral-related elements. For retail portfolios, product specific models assign accounts into homogeneous segments using internal and external borrower/facility-level credit experience. This process provides for a meaningful differentiation of risk and allows for appropriate and consistent estimation of loss characteristics at the model and segment level. Further details on credit risk relating to derivatives are provided in Note 10(c).

(i) Credit risk exposures

Credit risk exposures disclosed below are presented based on the Basel framework utilized by the Bank i.e. exposures subject to credit risk capital. The Bank uses the Advanced Internal Ratings Based approach (AIRB) for all material Canadian, U.S., European portfolios, and for a significant portion of all international corporate and commercial portfolios. The remaining portfolios, including other individual portfolios, are treated under the standardized approach. Under the AIRB approach, the Bank uses internal risk parameter estimates, based on historical experience and appropriate margin of conservatism, for probability of default (PD), loss given default (LGD) and exposure at default (EAD).

Under the standardized approach, credit risk is estimated using the risk weights as prescribed by the Basel framework either based on credit assessments by external rating agencies or based on the counterparty type for non-retail exposures and product type for retail exposures. Standardized risk weights also take into account other factors such as specific provisions for defaulted exposures, eligible collateral, and loan-to-value for real estate secured retail exposures.

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As at October 31 ($ millions)	2021				2020
	Exposure at default[1]				
Category	Drawn[2]	Undrawn commitments	Other exposures[3]	Total	Total
By counterparty type					
Non-retail					
AIRB portfolio					
Corporate	$ 172,443	$ 108,300	$ 91,719	$ 372,462	$ 358,997
Bank	15,737	4,662	15,393	35,792	43,120
Sovereign	207,488	761	5,051	213,300	243,404
	395,668	113,723	112,163	621,554	645,521
Standardized portfolio					
Corporate	52,545	3,475	7,627	63,647	66,500
Bank	3,048	15	1	3,064	2,638
Sovereign	8,641	–	132	8,773	8,322
	64,234	3,490	7,760	75,484	77,460
Total non-retail	$ 459,902	$ 117,213	$ 119,923	$ 697,038	$ 722,981
Retail					
AIRB portfolio					
Real estate secured	207,943	19,984	–	227,927	192,927
Qualifying revolving	14,415	27,356	–	41,771	45,862
Other retail	32,527	3,680	–	36,207	35,056
	$ 254,885	$ 51,020	$ –	$ 305,905	$ 273,845
Standardized portfolio					
Real estate secured	54,617	–	–	54,617	47,715
Other retail	36,445	–	–	36,445	39,683
	91,062	–	–	91,062	87,398
Total retail	$ 345,947	$ 51,020	$ –	$ 396,967	$ 361,243
Total	$ 805,849	$ 168,233	$ 119,923	$ 1,094,005	$ 1,084,224
By geography[4]					
Canada	$ 493,208	$ 108,440	$ 38,100	$ 639,748	$ 621,409
United States	109,493	40,452	44,479	194,424	188,210
Chile	49,258	1,449	4,070	54,777	56,738
Mexico	34,463	1,483	2,476	38,422	39,187
Peru	24,042	1,134	2,976	28,152	33,931
Colombia	12,839	534	1,073	14,446	13,123
Other International					
Europe	21,091	7,116	18,972	47,179	51,770
Caribbean	25,281	1,411	981	27,673	31,420
Latin America (other)	12,326	1,241	513	14,080	13,647
All other	23,848	4,973	6,283	35,104	34,789
Total	$ 805,849	$ 168,233	$ 119,923	$ 1,094,005	$ 1,084,224

(1) Exposure at default is presented after credit risk mitigation. Exposures exclude equity securities and other assets. Portfolios under the Standardized Approach are reported net of specific allowances for credit losses, and effective 2021, net of collateral amounts treated under the Comprehensive Approach.
(2) Non-retail drawn includes loans, acceptances, deposits with financial institutions and FVOCI debt securities. Retail drawn includes residential mortgages, credit cards, lines of credit, and other personal loans.
(3) Non-retail other exposures include off-balance sheet lending instruments such as letters of credit, letters of guarantees, securitizations including $22.3 million first loss protection (2020 –27.6 million), derivatives and repo-style transactions (reverse repurchase agreements, repurchase agreements, securities lending and securities borrowing), net of related collateral. Not applicable for retail exposures.
(4) Geographic segmentation is based upon the location of the ultimate risk of the credit exposure.

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Consolidated Statement of Financial Position asset categories cross-referenced to credit risk exposures

The table below provides mapping of on-balance sheet asset categories that are included in the various Basel III exposure categories as presented in the credit risk exposure summary table of these consolidated financial statements. In addition, it also provides other exposures which are subject to market risk and/or other assets which are not subject to market and credit risk with a reconciliation to the Consolidated Statement of Financial Position. The credit risk exposures on certain assets such as cash, precious metals, investment securities (equities) and other assets are not included on the credit risk exposure summary table. Also excluded from the credit risk exposures are certain trading assets and all assets of the Bank's insurance subsidiaries.

	Credit Risk Exposures						Other Exposures			
	Drawn		Other Exposures				Market Risk Exposures			
As at October 31, 2021 ($ millions)	Non-retail	Retail	Securitization	Repo-style Transactions	OTC Derivatives	Equity	Also subject to Credit Risk		All Other[1]	Total
Cash and deposits with financial institutions	$ 83,176	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ 3,147	$ 86,323
Precious metals	–	–	–	–	–	–	–	755	–	755
Trading assets										
Securities	1	–	–	–	–	–	–	137,147	–	137,148
Loans	470	–	–	–	–	–	397	7,643	–	8,113
Other	–	–	–	–	–	–	–	1,051	–	1,051
Financial assets designated at fair value through profit or loss	–	–	–	–	–	–	–	–	–	–
Securities purchased under resale agreements and securities borrowed	–	–	–	127,739	–	–	–	–	–	127,739
Derivative financial instruments	–	–	–	–	42,302	–	35,379	–	–	42,302
Investment securities	70,193	–	–	–	–	4,373	–	–	633	75,199
Loans:										
Residential mortgages[2]	77,773	241,833	–	–	–	–	–	–	72	319,678
Personal loans	–	89,518	2,015	–	–	–	–	–	7	91,540
Credit cards	–	10,842	136	–	–	–	–	–	1,472	12,450
Business & government	208,967	4,025	5,861	–	–	–	–	–	91	218,944
Allowances for credit losses[3]	(552)	(759)	–	–	–	–	–	–	(4,315)	(5,626)
Customers' liability under acceptances	20,441	–	–	–	–	–	–	–	(37)	20,404
Property and equipment	–	–	–	–	–	–	–	–	5,621	5,621
Investment in associates	–	–	–	–	–	46	–	–	2,558	2,604
Goodwill and other intangibles assets	–	–	–	–	–	–	–	–	16,604	16,604
Other (including Deferred tax assets)	1,772	659	–	2	–	–	–	–	21,562	23,995
Total	$ 462,241	$ 346,118	$ 8,012	$ 127,741	$ 42,302	$ 4,419	$ 35,776	$ 146,596	$ 47,415	$ 1,184,844

(1) Includes the Bank's insurance subsidiaries' assets and all other assets which are not subject to credit and market risks.
(2) Includes $78.1 billion in mortgages guaranteed by Canada Mortgage Housing Corporation including90% of privately insured mortgages.
(3) Amounts for AIRB exposures are reported gross of allowances and amounts for standardized exposures are reported net of allowances.

	Credit Risk Exposures						Other Exposures			
	Drawn		Other Exposures				Market Risk Exposures			
As at October 31, 2020 ($ millions)	Non-retail	Retail	Securitization	Repo-style Transactions	OTC Derivatives	Equity	Also subject to Credit Risk		All Other[1]	Total
Cash and deposits with financial institutions	$ 73,406	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ 3,054	$ 76,460
Precious metals	–	–	–	–	–	–	–	1,181	–	1,181
Trading assets										
Securities	–	–	–	–	–	–	–	108,331	–	108,331
Loans	1,640	–	–	177	–	–	1,470	6,535	–	8,352
Other	–	–	–	–	–	–	–	1,156	–	1,156
Financial assets designated at fair value through profit or loss	–	–	–	–	–	–	–	–	–	–
Securities purchased under resale agreements and securities borrowed	–	–	–	119,747	–	–	–	–	–	119,747
Derivative financial instruments	–	–	–	–	45,065	–	39,294	–	–	45,065
Investment securities	105,811	–	–	–	–	3,056	–	–	2,522	111,389
Loans:										
Residential mortgages[2]	83,606	200,985	–	–	–	–	–	–	93	284,684
Personal loans	–	91,435	2,314	–	–	–	–	–	9	93,758
Credit cards	–	12,347	93	–	–	–	–	–	2,357	14,797
Business & government	206,607	3,649	6,974	–	–	–	–	–	433	217,663
Allowances for credit losses[3]	(561)	(944)	–	–	–	–	–	–	(6,134)	(7,639)
Customers' liability under acceptances	14,305	–	–	–	–	–	–	–	(77)	14,228
Property and equipment	–	–	–	–	–	–	–	–	5,897	5,897
Investment in associates	–	–	–	–	–	–	–	–	2,475	2,475
Goodwill and other intangibles assets	–	–	–	–	–	–	–	–	17,015	17,015
Other (including Deferred tax assets)	1,844	936	–	10	–	–	–	–	19,117	21,907
Total	$ 486,658	$ 308,408	$ 9,381	$ 119,934	$ 45,065	$ 3,056	$ 40,764	$ 117,203	$ 46,761	$ 1,136,466

(1) Includes the Bank's insurance subsidiaries' assets and all other assets which are not subject to credit and market risks.
(2) Includes $85.4 billion in mortgages guaranteed by Canada Mortgage Housing Corporation including90% of privately insured mortgages.
(3) Amounts for AIRB exposures are reported gross of allowances and amounts for standardized exposures are reported net of allowances.

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(ii) Credit quality of non-retail exposures

Credit decisions are made based upon an assessment of the credit risk of the individual borrower or counterparty. Key factors considered in the assessment include: the borrower's management; the borrower's current and projected financial results and credit statistics; the industry in which the borrower operates; economic trends; and geopolitical risk. Banking units and Global Risk Management also review the credit quality of the credit portfolio across the organization on a regular basis to assess whether economic trends or specific events may affect the performance of the portfolio.

The Bank's non-retail portfolio is well diversified by industry. As at October 31, 2021, and October 31, 2020, a significant portion of the authorized corporate and commercial lending portfolio was internally assessed at a grade that would generally equate to an investment grade rating by external rating agencies. There has not been a significant change in concentrations of credit risk since October 31, 2020.

Internal grades (IG) are used to differentiate the risk of default of a borrower. The following table cross references the Bank's internal borrower grades with equivalent ratings categories utilized by external rating agencies:

Cross referencing of internal ratings to external ratings(1)

Equivalent External Rating					
S&P	Moody's	DBRS	Internal Grade	Internal Grade Code	PD Range(2)
AAA to AA+	Aaa to Aa1	AAA to AA (high)		99 – 98	0.0000% – 0.0428%
AA to A+	Aa2 to A1	AA to A (high)		95	0.0428% – 0.1159%
A to A-	A2 to A3	A to A (low)	Investment grade	90	0.0512% – 0.1271%
BBB+	Baa1	BBB (high)		87	0.0800% – 0.2027%
BBB	Baa2	BBB		85	0.1143% – 0.2950%
BBB-	Baa3	BBB (low)		83	0.1632% – 0.4293%
BB+	Ba1	BB (high)		80	0.2638% – 0.4731%
BB	Ba2	BB		77	0.4264% – 0.5215%
BB-	Ba3	BB (low)	Non-Investment grade	75	0.5215% – 0.6892%
B+	B1	B (high)		73	0.6892% – 1.3282%
B to B-	B2 to B3	B to B (low)		70	1.3282% – 2.5597%
CCC+	Caa1	–		65	2.5597% – 9.3860%
CCC	Caa2	–	Watch list	60	9.3860% – 17.8585%
CCC- to CC	Caa3 to Ca	–		40	17.8585% –34.4434%
–	–	–		30	34.4434% –58.6885%
Default			Default	21	100%

(1) Applies to non-retail portfolio.
(2) PD ranges overlap across IG codes as the Bank utilizes two risk rating systems for its AIRB portfolios, and each risk rating system has its own separate IG to PD mapping.

Non-retail AIRB portfolio

The credit quality of the non-retail AIRB portfolio, expressed in terms of risk categories of borrower internal grades is shown in the table below:

		2021				2020
		Exposure at Default(1)				
As at October 31 ($ millions) Category of internal grades	IG Code	Drawn	Undrawn commitments	Other exposures(2)	Total	Total
Investment grade	**99 – 98**	**$ 100,203**	**$ 1,785**	**$ 14,202**	**$ 116,190**	$ 127,534
	95	**30,814**	**10,281**	**21,170**	**62,265**	82,782
	90	**27,327**	**18,280**	**29,930**	**75,537**	70,781
	87	**29,080**	**20,388**	**15,166**	**64,634**	63,904
	85	**24,191**	**17,237**	**11,410**	**52,838**	45,973
	83	**31,292**	**16,891**	**8,357**	**56,540**	53,969
Non-Investment grade	**80**	**29,127**	**13,884**	**4,689**	**47,700**	42,509
	77	**23,022**	**8,004**	**2,748**	**33,774**	33,708
	75	**15,610**	**4,333**	**2,879**	**22,822**	25,527
	73	**6,581**	**1,268**	**600**	**8,449**	10,326
	70	**1,961**	**620**	**233**	**2,814**	4,555
Watch list	**65**	**737**	**82**	**483**	**1,302**	1,224
	60	**884**	**536**	**206**	**1,626**	1,802
	40	**593**	**84**	**19**	**696**	506
	30	**92**	**–**	**–**	**92**	109
Default	**21**	**1,110**	**50**	**68**	**1,228**	1,555
Total		**$ 322,624**	**$ 113,723**	**$ 112,160**	**$ 548,507**	$ 566,764
Government guaranteed residential mortgages(3)		**73,044**	**–**	**–**	**73,044**	78,754
Total		**$ 395,668**	**$ 113,723**	**$ 112,160**	**$ 621,551**	$ 645,518

(1) After credit risk mitigation.
(2) Includes off-balance sheet lending instruments such as letters of credit, letters of guarantee, securitizations excluding $3.5 million first loss protection (2020 – $3.5 million), derivatives and repo-style transactions (reverse repurchase agreements, repurchase agreements and securities lending and borrowing), net of related collateral.
(3) These exposures are classified as sovereign exposures and are included in the non-retail category.

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Non-retail standardized portfolio

The non-retail standardized portfolio relies on external credit ratings (e.g. S&P, Moody's, DBRS, etc.,) of the borrower, if available, to compute regulatory capital for credit risk. Exposures are risk weighted based on prescribed percentages and a mapping process as defined within OSFI's Capital Adequacy Requirements Guideline. Non-retail standardized portfolio as at October 31, 2021 comprised of drawn, undrawn and other exposures to corporate, bank and sovereign counterparties amounted to $75 billion (October 31, 2020 – $77 billion). Within this portfolio, the majority of Corporate/Commercial exposures are to unrated counterparties, mainly in Canada and the Pacific Alliance countries. During 2021, the Bank implemented the Comprehensive Approach for collateral, which resulted in an exposure decrease of $2 billion.

(iii) Credit quality of retail exposures

The Bank's retail portfolios consist of a number of relatively small loans to a large number of borrowers. The portfolios are distributed across Canada and a wide range of countries. As such, the portfolios inherently have a high degree of diversification. In addition, as of October 31, 2021, 31% of the Canadian banking residential mortgage portfolio is insured and the average loan-to-value ratio of the uninsured portion of the portfolio is 49%.

Retail AIRB portfolio

The data in the table below provides a distribution of the retail AIRB exposure within each PD range by asset class:

As at October 31 ($ millions)		2021					2020
		Exposure at default(1)					
		Real estate secured					
Category of (PD) grades	PD range	Mortgages	HELOC	Qualifying revolving	Other retail	Total	Total
Exceptionally Low	**0.0000% – 0.0499%**	**$ 56,714**	**$ 22,387**	**$ 11,594**	**$ 731**	**$ 91,426**	$ 14,985
Very Low	**0.0500% – 0.1999%**	**78,041**	**13,257**	**9,809**	**5,887**	**106,994**	99,114
Low	**0.2000% – 0.9999%**	**42,438**	**4,057**	**11,063**	**19,657**	**77,215**	129,345
Medium Low	**1.0000% – 2.9999%**	**9,320**	**–**	**5,037**	**6,387**	**20,744**	20,162
Medium	**3.0000% – 9.9999%**	**528**	**411**	**3,619**	**2,758**	**7,316**	7,698
High	**10.0000% – 19.9999%**	**223**	**58**	**200**	**436**	**917**	631
Extremely High	**20.0000% – 99.9999%**	**240**	**34**	**367**	**222**	**863**	1,388
Default	**100%**	**161**	**58**	**82**	**129**	**430**	522
Total		**$ 187,665**	**$ 40,262**	**$ 41,771**	**$ 36,207**	**$ 305,905**	$ 273,845

(1) After credit risk mitigation.

Retail standardized portfolio

The retail standardized portfolio of $91 billion as at October 31, 2021 (2020 – $87 billion) was comprised of residential mortgages, personal loans, credit cards and lines of credit to individuals, mainly in the Latin American and Caribbean region. Of the total retail standardized exposures, $55 billion (2020 – $48 billion) was represented by mortgages and loans secured by residential real estate, mostly with a loan-to-value ratio of below 80%.

(iv) Collateral

Collateral held

In the normal course of business, to reduce its exposure to counterparty credit risk, the Bank receives collateral for capital markets related activities. The following are examples of the terms and conditions customary to collateral for these types of transactions:

- The risks and rewards of the pledged assets reside with the pledgor.
- Additional collateral is required when the market value of the transaction exceeds thresholds agreed upon with the pledgor.
- The Bank is normally permitted to sell or repledge the collateral it receives, although this right is specific to each agreement under which the collateral is pledged.
- Upon satisfaction of the obligation, the Bank must return the pledged assets, unless the Bank has the right to sell or repledge the collateral it receives, in which case the Bank must return comparable collateral to the pledgor.

As at October 31, 2021, the approximate market value of cash and securities collateral accepted that may be sold or repledged by the Bank was $192 billion (2020 – $176 billion). This collateral is held primarily in connection with reverse repurchase agreements, margin loans, securities lending and derivative transactions. The Bank also borrows securities under standard securities borrowing agreements that it is able to re-pledge. Including these borrowed securities, the approximate market value of securities collateral accepted that may be sold or re-pledged was $227 billion (2020 – $208 billion), of which approximately $55 billion was not sold or re-pledged (2020 – $37 billion).

Collateral pledged

In the normal course of business, securities and other assets are pledged to secure an obligation, participate in clearing or settlement systems, or operate in a foreign jurisdiction. Note 35(c) details the nature and extent of the Bank's asset pledging activities. Asset pledging transactions are conducted under terms that are common and customary to standard derivative, securities financing, and other borrowing activities. Standard risk management controls are applied with respect to asset pledging.

Assets acquired in exchange for loans

The carrying value of assets acquired in exchange for loans as at October 31, 2021 was $257 million (2020 – $301 million) mainly comprised of real estate and was classified as either held for sale or held for use as appropriate.

(b) Liquidity risk

Liquidity risk is the risk that the Bank is unable to meet its financial obligations in a timely manner at reasonable prices. The Bank's liquidity risk is subject to extensive risk management controls and is managed within the framework of policies and limits approved by the Board. The Board receives reports on risk exposures and performance against approved limits. The Asset-Liability Committee (ALCO) provides senior management oversight of liquidity risk.

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The key elements of the Bank's liquidity risk management framework include:

- liquidity risk measurement and management limits, including limits on maximum net cash outflow by currency over specified short-term horizons;
- prudent diversification of its wholesale funding activities by using a number of different funding programs to access the global financial markets and manage its maturity profile, as appropriate;
- large holdings of liquid assets to support its operations, which can generally be sold or pledged to meet the Bank's obligations;
- liquidity stress testing, including Bank-specific, global-systemic, and combination systemic/Bank-specific scenarios; and
- liquidity contingency planning.

The Bank's foreign operations have liquidity management frameworks that are similar to the Bank's framework. Local deposits are managed from a liquidity risk perspective based on the local management frameworks and regulatory requirements.

(i) Commitments to extend credit

In the normal course of business, the Bank enters into commitments to extend credit in the form of loans or other financings for specific amounts and maturities, subject to specific conditions. These commitments, which are not reflected on the Consolidated Statement of Financial Position, are subject to normal credit standards, financial controls and monitoring procedures.

(ii) Derivative instruments

The Bank is subject to liquidity risk relating to its use of derivatives to meet customer needs, generate revenues from trading activities, manage market and credit risks arising from its lending, funding and investment activities, and lower its cost of capital. The maturity profile of the notional amounts of the Bank's derivative instruments is summarized in Note 10(b).

(c) Market risk

Market risk arises from changes in market prices and rates (including interest rates, credit spreads, equity prices, foreign exchange rates and commodity prices), the correlations between them, and their levels of volatility. Market risk is subject to extensive risk management controls, and is managed within the framework of market risk policies and limits approved by the Board. The ALCO and Market Risk Management and Policy Committee oversee the application of the framework set by the Board, and monitor the Bank's market risk exposures and the activities that give rise to these exposures.

The Bank uses a variety of metrics and models to measure and control market risk exposures. The measurements used are selected based on an assessment of the nature of risks in a particular activity. The principal measurement techniques are Value at Risk (VaR), stress testing, sensitivity analysis and simulation modeling. The Board reviews results from these metrics quarterly. Models are independently validated internally prior to implementation and are subject to formal periodic review.

VaR is a statistical measure that estimates the potential loss in value of the Bank's trading positions due to adverse market movements over a defined time horizon with a specified confidence level. The quality of the Bank's VaR is validated by regular back testing analysis, in which the VaR is compared to theoretical and actual profit and loss results. To complement VaR, the Bank also uses stress testing to examine the impact that abnormally large swings in market factors and periods of prolonged inactivity might have on trading portfolios. The stress testing program is designed to identify key risks and ensure that the Bank's capital can absorb potential losses from abnormal events. The Bank subjects its trading portfolios to a series of stress tests on a daily, weekly and monthly basis.

In trading portfolios, sensitivity analysis is used to measure the effect of changes in risk factors, including prices and volatility, on financial products and portfolios. In non-trading portfolios, sensitivity analysis assesses the effect of changes in interest rates on current earnings and on the economic value of shareholders' equity. Simulation modeling under various scenarios is particularly important for managing risk in the deposit, lending and investment products the Bank offers to its retail customers.

(i) Non-trading interest rate risk

Interest rate risk is the risk of loss due to the following: changes in the level, slope and curvature of the yield curve; the volatility of interest rates and changes in customer preferences (e.g. mortgage prepayment rates). The Bank actively manages its interest rate exposures with the objective of protecting and enhancing net interest income within established risk tolerances. Interest rate risk arising from the Bank's funding and investment activities is managed in accordance with Board-approved policies and global limits, which are designed to control the risk to net interest income and economic value of shareholders' equity. The income limit measures the effect of a specified shift in interest rates on the Bank's annual net interest income over the next twelve months, while the economic value limit measures the impact of a specified change in interest rates on the present value of the Bank's net assets. These calculations are based on models that consider a number of inputs and are on a constant balance sheet and make no assumptions for management actions that may mitigate the risk.

Interest rate sensitivity

Based on the Bank's interest rate positions, the following table shows the pro-forma after-tax impact on the Bank's net interest income over the next twelve months and economic value of shareholders' equity of an immediate and sustained 100 basis points increase and 25 basis points decrease in interest rates across major currencies as defined by the Bank. Corresponding with the current low interest rate environment, starting in Q2 2020, the net interest income and economic value for a down shock scenario are measured using 25 basis points decline rather than 100 basis points previously, to account for certain rates being floored at zero.

As at October 31 ($ millions)	2021						2020	
	Net interest income			Economic value of equity				
	Canadian dollar	Other currencies	Total	Canadian dollar	Other currencies	Total	Net interest income	Economic value of equity
100 bp increase	**$ 123**	**$ 34**	**$ 157**	**$ (557)**	**$ (309)**	**$ (866)**	$ 134	$ (510)
25 bp decrease	**$ (38)**	**$ (9)**	**$ (47)**	**$ 96**	**$ 58**	**$ 154**	$ (38)	$ 63

(ii) Non-trading foreign currency risk

Foreign currency risk is the risk of loss due to changes in spot and forward rates, and the volatility of currency exchange rates. Non-trading foreign currency risk, also referred to as structural foreign exchange risk, arises primarily from the Bank's net investments in self-sustaining foreign operations and is controlled by a Board-approved limit. This limit considers potential volatility to shareholders' equity as well as the potential impact on capital ratios from foreign exchange fluctuations. On a quarterly basis, the Asset-Liability Committee (ALCO) reviews the Bank's exposures to these net investments. The Bank may fully or partially hedge this exposure by funding the investments in the same currency, or by using other financial instruments, including derivatives.

The Bank is subject to foreign currency risk on the earnings of its foreign operations. To manage this risk, foreign currency revenues and expenses, which are primarily denominated in U.S. dollars, are projected over a number of future fiscal quarters. The ALCO assesses economic data and forecasts to decide on the portion of the estimated future foreign currency revenues and expenses to hedge. Hedging instruments normally include foreign currency spot and forward contracts, as well as foreign currency options and swaps.

As at October 31, 2021, a one percent increase (decrease) in the Canadian dollar against all currencies in which the Bank operates decreases (increases) the Bank's before-tax annual earnings by approximately $61 million (October 31, 2020 – $66 million) in the absence of hedging activity, primarily from exposure to U.S. dollars. A similar change in the Canadian dollar as at October 31, 2021 would increase (decrease) the unrealized foreign currency translation losses in the accumulated other comprehensive income in equity by approximately $321 million (2020 – $354 million), net of hedging.

(iii) Non-trading equity risk

Equity risk is the risk of loss due to adverse movements in equity prices. Equity price risk is often classified into two categories: general equity risk, which refers to the sensitivity of an instrument or portfolio's value to changes in the overall level of equity prices, and specific equity risk, which refers to that portion of an individual equity instrument's price volatility that is determined by entity-specific characteristics.

The Bank is exposed to equity risk through its equity investment portfolios, which are controlled by Board-approved portfolio and VaR limits. Equity investments include common and preferred shares, as well as a diversified portfolio of third-party managed funds.

The majority of the Bank's equity investment portfolios are managed by Group Treasury under the strategic direction of the ALCO. Group Treasury delegates the management of a portion of equity and equity-related portfolios to other external fund managers to take advantage of these fund managers' expertise in particular market niches and products.

The fair value of equity securities designated at FVOCI is shown in Note 12.

(iv) Trading portfolio risk management

The Bank's policies, processes and controls for trading activities are designed to achieve a balance between pursuing profitable trading opportunities and managing earnings volatility within a framework of sound and prudent practices. Trading activities are primarily customer focused.

Market risk arising from the Bank's trading activities is managed in accordance with Board-approved policies and limits, including aggregate VaR and stress testing limits.

Trading portfolios are marked-to-market in accordance with the Bank's valuation policies. Positions are marked-to-market daily and valuations are independently reviewed by back office, GRM or finance units on a regular basis. These units also provide profit and loss reporting, as well as VaR and limit compliance reporting to business unit management and executive management for evaluation and action as appropriate. VaR is calculated daily using a 99% confidence level, and a one-day holding period. This means that, once in every 100 days, the trading positions are expected to lose more than the VaR estimate. The Bank calculates general market risk VaR using historical simulation based on 300 days of market data. For debt specific risk VaR, the Bank uses historical resampling. The table below shows the Bank's VaR by risk factor:

($ millions)	As at October 31, 2021	For the year ended October 31, 2021			As at October 31, 2020
		Average	High	Low	
Credit spread plus interest rate	**$ 10.3**	**$ 11.9**	**$ 23.2**	**$ 4.5**	$ 11.5
Credit spread	**2.0**	**5.4**	**12.7**	**0.5**	11.1
Interest rate	**11.5**	**12.2**	**22.0**	**4.6**	11.4
Equities	**6.7**	**5.9**	**20.8**	**2.2**	3.1
Foreign exchange	**2.0**	**2.7**	**5.7**	**1.4**	4.6
Commodities	**1.3**	**3.9**	**8.7**	**1.0**	5.0
Debt specific	**1.5**	**2.8**	**5.1**	**1.5**	5.2
Diversification effect	**(8.6)**	**(13.1)**	**n/a**	**n/a**	(14.8)
All-Bank VaR	**$ 13.2**	**$ 14.1**	**$ 32.8**	**$ 7.9**	$ 14.6
All-Bank stressed VaR	**$ 36.1**	**$ 36.2**	**$ 50.5**	**$ 22.0**	$ 37.0

Below are the market risk capital requirements as at October 31, 2021.

($ millions)	
All-Bank VaR	**$ 93**
All-Bank stressed VaR[1]	**353**
Incremental risk charge	**150**
Standardized approach	**53**
Total market risk capital	**$ 649**[2]

(1) A market risk capital add-on was applied in Q4 to reflect higher stressed VaR utilization from 2020 COVID-19 stress period.
(2) Equates to $8,112 million of risk-weighted assets (October 31, 2020 – $7,327 million).

(d) Operational risk

Operational risk is the risk of loss resulting from people, inadequate or failed processes and systems, or from external events. Operational risk includes third party risk management and legal risk but excludes strategic risk and reputational risk. It also exists in some form in each of the Bank's business and support activities, and third parties to whom activities have been outsourced. It can result in financial loss, regulatory sanctions and damage to the Bank's reputation. The Bank's Operational Risk Management Framework outlines the Bank's structured approach for effective management of enterprise-wide operational risk in a manner consistent with best practices and regulatory requirements.

37 Acquisition and Divestitures

Acquisition

Scotiabank Chile

On May 12, 2021, the Bank increased its ownership in Scotiabank Chile through the acquisition of an additional 7.0% stake from the non-controlling shareholder for $481 million, resulting in ownership of 83% in Scotiabank Chile. This transaction between the Bank and the non-controlling shareholder did not result in a change in the carrying value of the assets and liabilities of the subsidiary, and there was no impact on the Bank's Consolidated Statement of Income.

The transaction negatively impacted Scotiabank's Common Equity Tier 1 capital ratio by six basis points. Scotiabank Chile forms part of the International Banking business segment.

Completed acquisitions impacting 2019

Banco Dominicano del Progreso, Dominican Republic

On March 1, 2019, the Bank acquired 97.44% of the voting shares of Banco Dominicano del Progreso, a bank with operations in the Dominican Republic, in exchange for total consideration of $440 million in cash, including goodwill of $271 million. The acquired business forms part of the International Banking business segment.

Banco Cencosud, Peru

On March 1, 2019, the Bank acquired 51% of the voting shares of Banco Cencosud, Peru in exchange for total consideration of $133 million in cash. The Bank and Banco Cencosud will jointly manage the credit card operations and offer other products and services to customers in partnership for 15 years. The acquired business forms part of the International Banking business segment.

Divestitures

Closed divestitures impacting the current fiscal year

Operations in Belize

On March 31, 2021, the Bank completed the sale of its 100% interest in Scotiabank (Belize) Ltd. to Caribbean Investment Holdings Limited, upon receiving regulatory approvals and satisfying closing conditions.

All assets and liabilities related to this operation were derecognized on the closing date. The net impact to the Bank of this transaction was not significant.

Operations in Antigua and Barbuda

On September 1, 2021, the Bank announced that it has completed the sale of its banking operations in Antigua and Barbuda to Eastern Caribbean Amalgamated Bank Limited, upon receiving regulatory approvals and satisfying closing conditions.

All assets and liabilities related to this operation were derecognized on the closing date. The net impact to the Bank of this transaction is not significant.

Closed divestitures impacting the prior fiscal years

2020

Thanachart Bank, Thailand

On December 3, 2019, the Bank completed the sale to reduce its 49% interest in Thanachart Bank Public Company Limited ("TBank") in Thailand, upon receiving regulatory approvals and satisfying closing conditions. As part of agreements entered into with ING Groep N.V., TBank, Thanachart Capital Public Co., Ltd and TMB Bank Public Company Limited ("TMB") in August 2019, the Bank sold its 49% interest in TBank in exchange for cash and an approximately 6% ownership interest in the form of common shares in TMB. As per the agreements, TBank became a wholly-owned subsidiary of TMB.

The shares held by the Bank in TMB, which were classified as investment securities measured at fair value through profit or loss, were sold during the fiscal year 2021.

The carrying value of the Bank's 49% interest in TBank of $3.6 billion was derecognized on the date of close and a net gain of approximately $426 million before tax ($414 million after tax) was recorded in Non-interest income – Other and reported in the Other segment. The transaction increased the Bank's common equity Tier 1 (CET1) ratio by approximately 36 basis points.

As part of the overall transaction, the Bank retained a 49% interest in two TBank subsidiaries, which are classified as investment in associates for which the Bank follows the equity method of accounting.

Pension fund operations in Colombia

On December 13, 2019, the Bank completed the sale of its 51% interest in AFP Colfondos to an affiliate of AFP Habitat, upon receiving regulatory approvals and satisfying closing conditions.

All assets and liabilities of approximately $240 million and $53 million, respectively, in relation to these operations have been derecognized on the date of close and a total loss of approximately $112 million after tax and non-controlling interests (2020 – $48 million; 2019 – $64 million) was recorded in Non-interest income – Other and reported in the Other segment.

In the Consolidated Statement of Shareholder's Equity, a gain of $27 million after tax was reclassified from AOCI to retained earnings related to investment securities designated as fair value through other comprehensive income, bringing the net impact of the divestiture to a net loss of $85 million.

Operations in Puerto Rico and the U.S. Virgin Islands

On December 31, 2019, the Bank completed the sale of its operations in Puerto Rico and the U.S. Virgin Islands ("USVI") to Oriental Bank, a subsidiary of OFG Bancorp, upon receiving regulatory approvals and satisfying closing conditions.

All assets and liabilities of approximately $4,800 million and $4,166 million, respectively, in relation to these operations have been derecognized on the date of close and a total loss of approximately $424 million after tax (2020 – $22 million; 2019 – $402 million) was recorded in Non-interest income – Other and reported in the Other segment. The transaction increased the Bank's common equity Tier 1 (CET1) ratio by approximately seven basis points.

Insurance and banking operations in El Salvador

On January 31, 2020, the Bank completed the sale of its banking and insurance operations in El Salvador, including Scotiabank El Salvador, its subsidiaries and Scotia Seguros, to Imperia Intercontinental Inc, upon receiving regulatory approvals and satisfying closing conditions.

All assets and liabilities of approximately $2,796 million and $2,481 million, respectively, in relation to these operations have been derecognized on the date of close and a total loss of approximately $164 million after tax (2020 – $28 million; 2019 – $136 million) was recorded in Non-interest income – Other and reported in the Other segment. The transaction increased the Bank's common equity Tier 1 (CET1) ratio by approximately four basis points.

Operations in British Virgin Islands

On May 31, 2020, the Bank completed the sale of its banking operations in the British Virgin Islands to Republic Financial Holdings Limited, upon receiving regulatory approvals and satisfying closing conditions.

All assets and liabilities of approximately $631 million and $537 million, respectively, in relation to these operations have been derecognized on the date of close and a total gain of approximately $48 million after tax was recorded in Non-interest income – Other and reported in the Other segment. The transaction increased the Bank's common equity Tier 1 (CET1) ratio by approximately two basis points.

2019

Pension and insurance operations in the Dominican Republic

On April 30, 2019, the Bank completed the sale of Scotia Crecer AFP and Scotia Seguros, its pension and related insurance businesses in the Dominican Republic to Grupo Rizek, upon receiving regulatory approvals and satisfying closing conditions.

All assets and liabilities of approximately $111 million and $26 million, respectively, in relation to this business were derecognized on the date of close and a net gain of approximately $273 million after tax was recorded in Non-interest income – Other and reported in the Other segment.

Banking operations in the Caribbean

On October 31, 2019, the Bank completed the sale of its banking operations in seven non-core markets in the Caribbean (Anguilla, Dominica, Grenada, St. Kitts & Nevis, St. Lucia, St. Maarten, St. Vincent & the Grenadines) to Republic Financial Holdings Limited, upon receiving regulatory approvals and satisfying closing conditions.

All assets and liabilities of approximately $2,086 million and $2,069 million, respectively, in relation to these operations were derecognized on the date of close and a net gain of approximately $38 million after tax was recorded in Non-interest income – Other and reported in the Other segment.

Divestiture announced that is expected to close in a future period

Operations in Guyana

On March 3, 2021, the Bank announced that it has entered into an agreement to sell its banking operations in Guyana to First Citizens Bank Limited. The transaction is subject to regulatory approvals and customary closing conditions.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of The Bank of Nova Scotia (the Bank) is responsible for establishing and maintaining adequate internal control over financial reporting, and have designed such internal control over financial reporting to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Management has used the *Internal Control – Integrated Framework (2013)* to evaluate the effectiveness of internal control over financial reporting, which is a recognized and suitable framework developed by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management has evaluated the design and operation of the Bank's internal control over financial reporting as of October 31, 2021, and has concluded that such internal control over financial reporting is effective. There are no material weaknesses that have been identified by management in this regard.

KPMG LLP, the independent auditors appointed by the shareholders of the Bank, who have audited the consolidated financial statements, have also audited internal control over financial reporting and have issued their report below.

Brian J. Porter
President and Chief Executive Officer

Raj Viswanathan
Group Head and Chief Financial Officer

Toronto, Canada
November 30, 2021

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of The Bank of Nova Scotia

Opinion on Internal Control Over Financial Reporting

We have audited The Bank of Nova Scotia's internal control over financial reporting as of October 31, 2021, based on the criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, The Bank of Nova Scotia (the Bank) maintained, in all material respects, effective internal control over financial reporting as of October 31, 2021, based on the criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated statements of financial position of the Bank as at October 31, 2021, and 2020, the related consolidated statements of income, comprehensive income, changes in equity and cash flows for each of the years in the three-year period ended October 31, 2021, and the related notes (collectively, the consolidated financial statements) and our report dated November 30, 2021 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Bank's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included under the heading "Management's Report on Internal Control Over Financial Reporting" above. Our responsibility is to express an opinion on the Bank's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Bank in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.



Chartered Professional Accountants, Licensed Public Accountants

Toronto, Canada
November 30, 2021

CORPORATE GOVERNANCE

Corporate Governance Regulation

The Board of Directors and management believe that a strong, effective, independent Board plays a crucial role in building long-term sustainable growth in shareholder value, maximizing the value shareholders receive from their investment in the Bank and protecting the interests of stakeholders. The Board is committed to meeting high standards of corporate governance in all aspects of the Bank's affairs.

The Bank's corporate governance practices are regulated by many different parties, including the Bank's primary regulator, the Office of the Superintendent of Financial Institutions Canada, and the Board looks to evolving best practices domestically and internationally in reviewing its corporate governance practices. Our practices:

- Meet or exceed the standards set out in the guidelines and rules of the Bank Act (Canada) (the "Bank Act") and those of the Canadian Securities Administrators ("CSA") – which include National Instrument 52-110, National Instrument 52-109, National Policy 58-201 and National Instrument 58-101, and
- Comply with applicable requirements of the New York Stock Exchange ("NYSE") and the Sarbanes-Oxley Act of 2002, including applicable rules of the U.S. Securities and Exchange Commission.

The Bank is not required to comply with most of the NYSE corporate governance rules. However, the Bank meets or exceeds these rules in all significant respects, except as summarized in the Governance section of the Bank's website (https://www.scotiabank.com/ca/en/about/our-company/governance.html).

The Corporate Governance Policies and the committee charters are available in the Board of Directors section of the Bank's website and in print to any shareholder who requests a copy from the Bank's Corporate Secretary. Additional information on the Bank's Audit and Conduct Review Committee, including a copy of its charter and descriptions of its members and their applicable education and experience, can be found in Exhibit 1, the Bank's Annual Information Form under the heading "The Bank's Audit and Conduct Review Committee" and in Schedule "C" thereto.

Director Independence

The Bank is committed to complying with all applicable laws, rules and regulations related to the status of its Directors. The Bank defines a Director who does not have a direct or indirect material relationship with the Bank as independent. The Board has approved Director Independence Standards (the "Independence Standards"), which provide a framework for the Board to assess any material relationships of the Directors with the Bank. The Independence Standards are derived from the Bank Act Affiliated Persons Regulations, the CSA rules and the NYSE corporate governance rules. Each year:

- The Board reviews its Directors against these standards, considering all relevant facts and circumstances, including the relationship of the non-management Directors to the Bank — as well as any relationship to the Bank of their spouses, children, principal business affiliations and any other relevant individuals.
- All Directors complete a detailed questionnaire to inform this review.
- All Directors certify their compliance with the Bank's Code of Conduct, including the requirement that they declare any material interest in matters coming before the Board.

Brian J. Porter is non-independent, due to his position as President and Chief Executive Officer.

That means, 12 of the current 13 (or 92%) Directors are independent, including Aaron W. Regent, the Chairman of the Board.

The Board also takes appropriate steps to ensure that the Board is able to function independent of management.

The independent members of the Board held an "in camera" session at all regularly scheduled Board meetings held in fiscal 2021.

The following Directors are independent: Nora A. Aufreiter, Guillermo E. Babatz, Scott B. Bonham, Daniel (Don) Callahan, Lynn K. Patterson, Michael D. Penner, Una M. Power, Aaron W. Regent, Calin Rovinescu, Susan L. Segal, L. Scott Thomson and Benita M. Warmbold.

Director Independence Standards

A majority of the Bank's directors are independent, as required by the CSA's National Policy 58- 201 — *Corporate Governance Guidelines* and the current NYSE listed company corporate governance rules. To be considered independent under these rules, the Board must determine that a director has no direct or indirect material relationship with the Bank. A material relationship is a relationship that could, in the view of the Board, be reasonably expected to interfere with the exercise of a director's judgement independent of management. The rules permit the Board to adopt categorical standards in making its independence determinations. The standards adopted by the Board are reproduced below. Definitions and interpretation of terms in the standards are in accordance with applicable source rules and regulations, as amended from time to time. In applying these standards, the Board broadly considers all relevant facts and circumstances.

1. A director will not be independent if:

    - the director is, or has been within the last three years, an employee or executive officer of the Bank or a subsidiary, or an immediate family member of the director is, or has been within the last three years, an executive officer of the Bank or a subsidiary;
    - the director has received, or an immediate family member of the director has received for service as an executive officer, during any twelve-month period within the last three years, more than the lesser of Cdn$75,000 and US$120,000 in direct compensation from the Bank or a subsidiary, other than director and committee fees and pension or other forms of deferred compensation for prior service (provided such compensation is not contingent in any way on continued service);
    - (a) the director or an immediate family member of the director is a current partner of a firm that is the Bank's or a subsidiary's internal or external auditor; (b) the director is a current employee of such firm; (c) an immediate family member of the director is a current employee of such a firm and personally works on the Bank's or a subsidiary's audit, or the director's spouse, or child or stepchild who shares a home with the director, is an employee of such firm and participates in the firm's audit, assurance or tax compliance (but not tax planning) practice; or (d) the director or an immediate family member was within the last three years a partner or employee of such a firm and personally worked on the Bank's or a subsidiary's audit within that time;
    - the director or an immediate family member of the director, is, or has been within the last three years, employed as an executive officer of another company where any of the Bank's or a subsidiary's present executive officers at the same time serves or served on that company's compensation committee;
    - the director is currently an employee, or an immediate family member of the director is currently an executive officer, of a company that has made payments to, or received payments from, the Bank or a subsidiary for property or services in an amount which, in any of the last three fiscal years, exceeds the greater of US$1 million or 2% of such other company's consolidated gross revenues (with the exception that contributions to tax exempt organizations shall not be considered payments for this purpose); or
    - the director is "affiliated" with the Bank as that term is used in the Affiliated Persons (Banks) Regulations made under the Bank Act (Canada).

An "immediate family member" includes a person's spouse, parents, children, stepchildren, siblings, mothers and fathers-in-law, sons and daughters-in-law, brothers and sisters-in-law, and anyone (other than domestic employees) who shares the person's home.

2. In addition to satisfying the independence standards set forth above, members of the audit committee must satisfy the following additional independence requirements:

    - An audit committee member may not accept, directly or indirectly, any consulting, advisory or other compensatory fee from the Bank or any subsidiary, other than compensation in his

or her capacity as a member of the Board or any committee or any fixed amount of compensation under a retirement plan (including deferred compensation) for prior service with the Bank (provided such compensation is not contingent in any way on continued service).

- An audit committee member may not be an “affiliated” person of the Bank or any subsidiary, as defined in applicable Canadian and U.S. securities laws.

The indirect acceptance by an audit committee member of any consulting, advisory or other compensatory fee includes acceptance of such fee by a spouse, minor child or stepchild or a child or stepchild who shares a home with the audit committee member or by an entity in which such audit committee member is a partner, member, an officer such as a managing director occupying a comparable position or executive officer, or occupies a similar position (except limited partners, non-managing members and those occupying similar positions who, in each case, have no active role in providing services to the entity) and which provides accounting, consulting, legal, investment banking or financial advisory services to the Bank or any subsidiary.

3. In addition to satisfying the independence standards set forth above in section 1, in affirmatively determining the independence of any director who will serve on the Bank’s compensation committee, the Board must consider all factors specifically relevant to determining whether a director has a relationship to the Bank which is material to that director’s ability to be independent from management in connection with the duties of a compensation committee member, including, but not limited to:

    - the source of compensation of such director, including any consulting, advisory or other compensatory fee paid by the Bank or a subsidiary to such director; and
    - whether such director is affiliated with the Bank, a subsidiary of the Bank or an affiliate of a subsidiary of the Bank.

Whether directors meet these categorical independence standards will be reviewed and will be made public annually prior to their standing for re-election to the Board. The Board will examine relationships such as the nature of the director’s banking, lending or other business dealings with the Bank or a director’s role in a charitable organization which has received a certain level of contributions from the Bank. For relationships not covered by the standards in section 1 above, the determination of whether the relationship is material, and therefore whether the director would be independent, will be made by the directors who satisfy those standards. The Bank will disclose the basis for any Board determination that a relationship is immaterial despite the fact that it does not meet the categorical standards set forth above.

Exhibit 99.6



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Tel 416-777-8500
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CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors of The Bank of Nova Scotia (the Bank)

We, KPMG LLP, consent to the inclusion in this annual report on Form 40-F of:

i) our report of independent registered public accounting firm dated November 30, 2021 to the Shareholders and the Board of Directors of the Bank on the consolidated financial statements of the Bank, which comprise the consolidated statements of financial position as at October 31, 2021 and 2020, the related consolidated statements of income, comprehensive income, changes in equity and cash flows for each of the years in the three-year period ended October 31, 2021, and the related notes; and

ii) our report of independent registered public accounting firm dated November 30, 2021 to the Shareholders and the Board of Directors of the Bank on the effectiveness of internal control over financial reporting as of October 31, 2021.

each of which is contained in this annual report on Form 40-F of the Bank for the fiscal year ended October 31, 2021.

We, KPMG LLP, also consent to the incorporation by reference of such reports in the Registration Statement on Form S-8 (No. 333-199099) of the Bank.

We, KPMG LLP, also consent to the incorporation by reference of such reports and to the reference to our firm under the heading “Experts” in the Registration Statement on Form F-3/A (No. 333-228614) of the Bank.

/s/ KPMG LLP

Chartered Professional Accountants, Licensed Public Accountants

November 30, 2021
Toronto, Canada

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Exhibit 99.7

CERTIFICATIONS

I, BRIAN J. PORTER, certify that:

1. I have reviewed the annual report on Form 40-F of The Bank of Nova Scotia;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the issuer as of, and for, the periods presented in this report;

4. The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the issuer and have:

    a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the issuer, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b) Designed such internal control over financial reporting, or caused such internal control over financial reporting 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 generally accepted accounting principles;

    c) Evaluated the effectiveness of the issuer's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d) Disclosed in this report any change in the issuer's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the issuer's internal control over financial reporting; and

5. The issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the issuer's auditors and the audit committee of the issuer's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the issuer's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the issuer's internal control over financial reporting.

Date: November 30, 2021

/s/ Brian J. Porter
Brian J. Porter
President and Chief Executive Officer

CERTIFICATIONS

I, RAJAGOPAL VISWANATHAN, certify that:

1. I have reviewed the annual report on Form 40-F of The Bank of Nova Scotia;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the issuer as of, and for, the periods presented in this report;

4. The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the issuer and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the issuer, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting 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 generally accepted accounting principles;

   c) Evaluated the effectiveness of the issuer's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the issuer's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the issuer's internal control over financial reporting; and

5. The issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the issuer's auditors and the audit committee of the issuer's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the issuer's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the issuer's internal control over financial reporting.

Date: November 30, 2021

/s/ Rajagopal Viswanathan
Rajagopal Viswanathan
Group Head and Chief Financial Officer

Exhibit 99.8

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ENACTED PURSUANT TO
SECTION 906 OF THE U.S. SARBANES-OXLEY ACT OF 2002

In connection with the annual report of The Bank of Nova Scotia (the "Bank") on Form 40-F for the year ended October 31, 2021 (the "Report") as filed with the U.S. Securities and Exchange Commission,

I, Brian J. Porter, President and Chief Executive Officer of the Bank, certify, pursuant to 18 U.S.C. section 1350, as enacted pursuant to section 906 of the U.S. Sarbanes-Oxley Act of 2002, that to my knowledge:

(i) the Report fully complies with the requirements of section 13(a) or 15(d) of the U.S. Securities Exchange Act of 1934; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Bank.

November 30, 2021

/s/ Brian J. Porter
Brian J. Porter
President and Chief Executive Officer

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ENACTED PURSUANT TO
SECTION 906 OF THE U.S. SARBANES-OXLEY ACT OF 2002

In connection with the annual report of The Bank of Nova Scotia (the "Bank") on Form 40-F for the year ended October 31, 2021 (the "Report") as filed with the U.S. Securities and Exchange Commission,

I, Rajagopal Viswanathan, Group Head and Chief Financial Officer of the Bank, certify, pursuant to 18 U.S.C. section 1350, as enacted pursuant to section 906 of the U.S. Sarbanes-Oxley Act of 2002, that to my knowledge:

(i) the Report fully complies with the requirements of section 13(a) or 15(d) of the U.S. Securities Exchange Act of 1934; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Bank.

November 30, 2021

/s/ Rajagopal Viswanathan
Rajagopal Viswanathan
Group Head and Chief Financial Officer