

Notes to the consolidated financial statements

Canadian Imperial Bank of Commerce (CIBC) is a diversified financial institution governed by the *Bank Act* (Canada). CIBC was formed through the amalgamation of the Canadian Bank of Commerce and Imperial Bank of Canada in 1961. Through our four strategic business units (SBUs) – Canadian Personal and Small Business Banking, Canadian Commercial Banking and Wealth Management, U.S. Commercial Banking and Wealth Management, and Capital Markets – CIBC provides a full range of financial products and services to 10 million⁽¹⁾ personal banking, business, public sector and institutional clients in Canada, the U.S. and around the world. Refer to Note 30 for further details on our business units. CIBC is incorporated and domiciled in Canada with our registered and principal business offices located at Commerce Court, Toronto, Ontario.

(1) Revised to consider clients that have banking relationships with both CIBC and Simplii Financial.

Note 1 | Basis of preparation and summary of significant accounting policies

Basis of preparation

The consolidated financial statements of CIBC have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB). These consolidated financial statements also comply with Section 308(4) of the *Bank Act* (Canada) and the requirements of the Office of the Superintendent of Financial Institutions (OSFI).

CIBC has consistently applied the same accounting policies throughout all periods presented, except for the adoption of IFRS 9 “Financial Instruments” effective November 1, 2017 without restatement of comparative periods as discussed below under the section titled “Accounting for Financial Instruments”.

These consolidated financial statements are presented in millions of Canadian dollars, unless otherwise indicated.

These consolidated financial statements were authorized for issue by the Board of Directors (the Board) on November 28, 2018.

Summary of significant accounting policies

The following paragraphs describe our significant accounting policies.

Use of estimates and assumptions

The preparation of the consolidated financial statements in accordance with IFRS requires management to make estimates and assumptions that affect the recognized and measured amounts of assets, liabilities, net income, comprehensive income and related disclosures. Significant estimates and assumptions are made in the areas of the valuation of financial instruments, impairment of AFS securities, allowance for credit losses, the evaluation of whether to consolidate structured entities (SEs), asset impairment, income taxes, provisions and contingent liabilities and post-employment and other long-term benefit plan assumptions. Actual results could differ from these estimates and assumptions.

Basis of consolidation

We consolidate entities over which we have control. We have control over another entity when we have: (i) power to direct relevant activities of the entity; (ii) exposure, or rights, to variable returns from our involvement with the entity; and (iii) the ability to affect those returns through our power over the entity.

Subsidiaries

Subsidiaries are entities over which CIBC has control. Generally, CIBC has control of its subsidiaries through a shareholding of more than 50% of the voting rights in its subsidiaries, and has significant exposure to the subsidiaries based on its ownership interests of more than 50%. The effects of potential voting rights that CIBC has the practical ability to exercise are considered when assessing whether control exists. Subsidiaries are consolidated from the date control is obtained by CIBC, and are deconsolidated from the date control is lost. Consistent accounting policies are applied for all consolidated subsidiaries. Details of our significant subsidiaries are provided in Note 26.

Structured entities

An SE is an entity that has been designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate to administrative tasks only and the significant relevant activities are directed by contractual arrangements. SEs often have some or all of the following features or attributes: (i) restricted activities; (ii) a narrow and well-defined objective, such as to securitize our own financial assets or third-party financial assets to provide sources of funding or to provide investment opportunities for investors by passing on risks and rewards associated with the assets of the SE to investors; (iii) insufficient equity to permit the SE to finance its activities without subordinated financial support; or (iv) financing in the form of multiple contractually linked instruments to investors that create concentrations of credit or other risks. Examples of SEs include securitization vehicles, asset-backed financings, and investment funds.

When voting rights are not relevant in deciding whether CIBC has power over an entity, particularly for complex SEs, the assessment of control considers all facts and circumstances, including the purpose and design of the investee, its relationship with other parties and each party's ability to make decisions over significant activities, and whether CIBC is acting as a principal or as an agent.

Consolidation conclusions are reassessed whenever there is a change in the specific facts and circumstances relevant to one or more of the three elements of control. Factors that trigger the reassessment include, but are not limited to, significant changes in ownership structure of the entities, changes in contractual or governance arrangements, provision of a liquidity facility beyond the original terms, transactions with the entities that were not contemplated originally and changes in the financing structure of the entities.

Transactions eliminated on consolidation

All intercompany transactions, balances and unrealized gains and losses on transactions are eliminated on consolidation.

Non-controlling interests

Non-controlling interests are presented on the consolidated balance sheet as a separate component of equity that is distinct from CIBC's shareholders' equity. The net income attributable to non-controlling interests is presented separately in the consolidated statement of income.

Associates and joint ventures

We classify investments in entities over which we have significant influence, and that are neither subsidiaries nor joint ventures, as associates. Significant influence is presumed to exist where we hold, either directly or indirectly, between 20% and 50% of the voting rights of an entity, or, in the case of a limited partnership, where CIBC is a co-general partner. Significant influence also may exist where we hold less than 20% of the voting rights of an entity, for example if we have influence over the policy-making processes through representation on the entity's Board of Directors, or by other means. Where we are a party to a contractual arrangement whereby together with one or more parties, we undertake an economic activity that is subject to joint control, we classify our interest in the venture as a joint venture.

Investments in associates and interests in joint ventures are accounted for using the equity method. Under the equity method, such investments are initially measured at cost, including attributable goodwill and intangible assets, and are adjusted thereafter for the post-acquisition change in our share of the net assets of the investment.

In applying the equity method for an investment that has a different reporting period from that of CIBC, adjustments are made for the effects of any significant events or transactions that occur between the reporting date of the investment and CIBC's reporting date.

Foreign currency translation

Monetary assets and liabilities and non-monetary assets and liabilities measured at fair value that are denominated in foreign currencies are translated into the functional currencies of operations at prevailing exchange rates at the date of the consolidated balance sheet. Revenue and expenses are translated using average monthly exchange rates. Realized and unrealized gains and losses arising from translation into functional currencies are included in the consolidated statement of income, with the exception of unrealized foreign exchange gains and losses on AFS equity securities, which are included in AOCI.

Assets and liabilities of foreign operations with a functional currency other than the Canadian dollar, including goodwill and fair value adjustments arising on acquisition, are translated into Canadian dollars at the exchange rates prevailing as at the consolidated balance sheet date, while revenue and expenses of these foreign operations are translated into Canadian dollars at the average monthly exchange rates. Exchange gains and losses arising from the translation of these foreign operations and from the results of hedging the net investment in these foreign operations, net of applicable taxes, are included in Net foreign currency translation adjustments, in AOCI.

Any accumulated exchange gains and losses, including the impact of hedging, and any applicable taxes in AOCI are reclassified into the consolidated statement of income when there is a disposal of a foreign operation. On partial disposal of a foreign operation, the proportionate share of the accumulated exchange gains and losses, including the impact of hedging, and any applicable taxes previously recognized in AOCI are reclassified into the consolidated statement of income.

Accounting for Financial Instruments

CIBC adopted IFRS 9 "Financial Instruments" (IFRS 9) in place of IAS 39 "Financial Instruments: Recognition and Measurement" (IAS 39) as of November 1, 2017 to comply with OSFI's advisory that requires that domestic systemically important banks (D-SIBs) adopt IFRS 9 for their annual periods beginning on November 1, 2017, one year earlier than required by the IASB. We applied IFRS 9 on a retrospective basis. As permitted, we did not restate our prior period comparative consolidated financial statements, which are reported under IAS 39 and are therefore not comparable to the information presented for 2018.

The adoption of IFRS 9 in the first quarter of 2018 resulted in changes in accounting policy in two principal areas, classification and measurement and impairment as described in more detail below. We had previously early adopted the "own credit" provisions of IFRS 9 as of November 1, 2014 and we have elected, as a policy choice permitted under IFRS 9, to continue to apply the hedge accounting requirements of IAS 39.

Classification and measurement of financial instruments under IAS 39

CIBC recognizes financial instruments on its consolidated balance sheet when it becomes a party to the contractual provisions of the instrument.

Under IAS 39, all financial assets were classified at initial recognition as trading, AFS, fair value option (FVO), held-to-maturity (HTM), or loans and receivables, based on the purpose for which the instrument was acquired and its characteristics. All financial assets and derivatives were required to be measured at fair value with the exception of loans and receivables, debt securities classified as HTM, and AFS equity instruments whose fair value could not be reliably measured. Reclassification of non-derivative financial assets out of trading to loans and receivables was allowed when they were no longer held for trading, and if they met the definition of loans and receivables and we had the intention and ability to hold the financial assets for the foreseeable future or until maturity. Reclassification of non-derivative financial assets out of trading to AFS was also allowed under rare circumstances. Non-derivative financial assets could be reclassified out of AFS to loans and receivables if they met the definition of loans and receivables and we had the intention and ability to hold the financial assets for the foreseeable future or until maturity, or reclassified out of AFS to HTM if we had the intention to hold the financial assets until maturity.

Financial liabilities, other than derivatives, obligations related to securities sold short and FVO liabilities, were measured at amortized cost. Derivatives, obligations related to securities sold short and FVO liabilities were measured at fair value. Interest expense was recognized on an accrual basis using the effective interest rate method.

Loans and receivables

Under IAS 39, loans and receivables were defined as non-derivative financial assets with fixed or determinable payments that did not have a quoted market price in an active market and for which we did not intend to sell immediately or in the near term at the time of inception. Loans and receivables were recognized initially at fair value, which represents the cash advanced to the borrower plus direct and incremental transaction costs. Subsequently, they were measured at amortized cost, using the effective interest rate method, net of an allowance for credit losses. Interest income was recognized on an accrual basis using the effective interest rate method. Certain loans and receivables could be designated at fair value (see below).

Trading financial instruments

Under IAS 39, trading financial instruments were defined as assets and liabilities that were held for trading activities or that were part of a managed portfolio with a pattern of short-term profit taking. These were measured initially at fair value. Loans and receivables that we intended to sell immediately or in the near term were classified as trading financial instruments.

Trading financial instruments were remeasured at fair value as at the consolidated balance sheet date. Gains and losses realized on disposition and unrealized gains and losses from changes in fair value were included in Non-interest income as Trading income (loss), except to the extent they were economically hedging an FVO asset or liability, in which case the gains and losses were included in FVO gains (losses), net. Dividends and interest income earned on trading securities and dividends and interest expense incurred on securities sold short were included in Interest income and Interest expense, respectively.

AFS financial assets

Under IAS 39, AFS financial assets were defined as non-derivative financial assets that were not classified as trading, FVO or loans and receivables, and were measured initially at fair value, plus direct and incremental transaction costs. Only equity instruments whose fair value could not be reliably measured were measured at cost. We determined that all of our equity securities had reliable fair values. As a result, all AFS financial assets were remeasured at FVOCI subsequent to initial recognition, except that foreign exchange gains or losses on AFS debt instruments were recognized in the consolidated statement of income. Unrealized foreign exchange gains or losses on AFS equity securities, along with all other fair value changes, were recognized in OCI until the investment is sold or impaired, whereupon the cumulative gains and losses previously recognized in OCI were transferred from AOCI to the consolidated statement of income. Realized gains and losses on sale, determined on an average cost basis, and write-downs to reflect impairment, were included in AFS securities gains (losses), net. Dividends and interest income from AFS financial assets were included in Interest income.

Designated at fair value financial instruments

Under IAS 39, FVO financial instruments were defined as those that we designated on initial recognition as instruments that we would measure at fair value through the consolidated statement of income. This designation, once made, was irrevocable. In addition to the requirement that reliable fair values were available, there were restrictions imposed by IFRS and by OSFI on the use of this designation. The criteria for applying the FVO at inception was met when: (i) the application of the FVO eliminated or significantly reduced the measurement inconsistency that otherwise would arise from measuring assets or liabilities on a different basis; or (ii) the financial instruments were part of a portfolio which was managed on a fair value basis, in accordance with our investment strategy, and were reported internally on that basis. FVO could also be applied to financial instruments that had one or more embedded derivatives that would otherwise require bifurcation as they significantly modified the cash flows of the contract.

Gains and losses realized on dispositions and unrealized gains and losses from changes in fair value of FVO financial instruments, and gains and losses arising from changes in fair value of derivatives, trading securities and obligations related to securities sold short that were managed as economic hedges of the FVO financial instruments, were included in FVO gains (losses), net. Dividends and interest earned and interest expense incurred on FVO assets and liabilities were included in Interest income and Interest expense, respectively. Changes in the fair value of FVO liabilities that were attributable to changes in own credit risk are recognized in OCI.

Classification and measurement of financial instruments under IFRS 9

Under IFRS 9, all financial assets must be classified at initial recognition as financial instruments mandatorily measured at FVTPL (trading and non-trading), financial instruments measured at amortized cost, debt financial instruments measured at FVOCI, equity financial instruments designated at FVOCI, or financial instruments designated at FVTPL, based on the contractual cash flow characteristics of the financial assets and the business model under which the financial assets are managed. All financial assets and derivatives are required to be measured at fair value with the exception of financial assets measured at amortized cost. Financial assets are required to be reclassified when and only when the business model under which they are managed has changed. All reclassifications are to be applied prospectively from the reclassification date.

The IFRS 9 classification and measurement model requires that all debt instrument financial assets that do not meet a “solely payment of principal and interest” (SPPI) test, including those that contain embedded derivatives, be classified at initial recognition as FVTPL. The SPPI test is conducted to identify whether the contractual cash flows of a financial instrument are “solely payments of principal and interest” such that any variability in the contractual cash flows is consistent with a “basic lending arrangement”. “Principal” for the purpose of this test is defined as the fair value of the financial asset at initial recognition and may change over the life of the financial asset, for example, due to repayments of principal or amortization of the premium/discount. “Interest” for the purpose of this test is defined as the consideration for the time value of money and credit risk, which are the most significant elements of interest within a lending arrangement. Contractual terms that introduce a more than de minimis exposure to risks or volatility in the contractual cash flows that are unrelated to a basic lending arrangement do not give rise to contractual cash flows that are solely payments of principal and interest on the amount outstanding. The intent of the SPPI test is to ensure that debt instruments that contain non-basic lending features, such as conversion options and equity-linked payouts, are measured at FVTPL.

For debt instrument financial assets that meet the SPPI test, classification at initial recognition is determined based on the business model under which these instruments are managed. Debt instruments that are managed on a “held for trading” or “fair value” basis are classified as FVTPL. Debt instruments that are managed on a “hold to collect and for sale” basis are classified as FVOCI for debt. Debt instruments that are managed on a “hold to collect” basis are classified as amortized cost. We consider the following in our determination of the applicable business model for financial assets:

- I) The business purpose of the portfolio;
- II) The risks that are being managed and the type of business activities that are being carried out on a day-to-day basis to manage the risks;
- III) The basis on which performance of the portfolio is being evaluated; and
- IV) The frequency and significance of sales activity.

All equity instrument financial assets are classified at initial recognition as FVTPL unless they are not held with the intent for short-term profit taking and an irrevocable designation is made to classify the instrument as FVOCI for equities.

The classification and measurement of financial liabilities remain essentially unchanged from the IAS 39 requirements, except that changes in the fair value of liabilities designated at FVTPL using the FVO which are attributable to changes in own credit risk are presented in OCI, rather than profit or loss. We early adopted the “own credit” provisions of IFRS 9 as of November 1, 2014.

Derivatives continue to be measured at FVTPL under IFRS 9, except to the extent that they are designated in a hedging relationship, in which case the IAS 39 hedge accounting requirements continue to apply.

Financial instruments mandatorily measured at FVTPL (trading and non-trading)

Under IFRS 9, trading financial instruments are mandatorily measured at FVTPL as they are held for trading purposes or are part of a managed portfolio with a pattern of short-term profit taking. Non-trading financial assets are also mandatorily measured at fair value if their contractual cash flow characteristics do not meet the SPPI test or if they are managed together with other financial instruments on a fair value basis.

Trading and non-trading financial instruments mandatorily measured at FVTPL are remeasured at fair value as at the consolidated balance sheet date. Gains and losses realized on disposition and unrealized gains and losses from changes in fair value are included in Non-interest income as Gains (losses) from financial instruments measured/designated at FVTPL, net. Interest income and dividends earned on trading and non-trading securities and dividends and interest expense incurred on securities sold short are included in Interest income and Interest expense, respectively.

Financial instruments designated at FVTPL (fair value option)

Under IFRS 9, financial instruments designated at FVTPL are those that we voluntarily designate at initial recognition as instruments that we will measure at fair value through the consolidated statement of income that would otherwise fall into a different accounting category. As was the case under IAS 39, the

FVO designation, once made, is irrevocable and can only be applied if reliable fair values are available, when doing so eliminates or significantly reduces the measurement inconsistency that would otherwise arise from measuring assets or liabilities on a different basis and if certain OSFI requirements are met. Financial liabilities may also be designated at FVTPL when they are part of a portfolio which is managed on a fair value basis, in accordance with our investment strategy, and are reported internally on that basis. Designation at FVTPL may also be applied to financial liabilities that have one or more embedded derivatives that would otherwise require bifurcation. Unlike IAS 39, however, there is no need to apply FVO to equity instruments as the default accounting is financial instruments mandatorily measured at FVTPL. As was the case under IAS 39, we apply the FVO to certain mortgage commitments.

Gains and losses realized on dispositions and unrealized gains and losses from changes in the fair value of FVO financial instruments are treated in the same manner as financial instruments which are mandatorily measured at FVTPL, except that changes in the fair value of FVO liabilities that are attributable to changes in own credit risk are recognized in OCI. Dividends and interest earned and interest expense incurred on FVO assets and liabilities are included in Interest income and Interest expense, respectively.

Financial assets measured at amortized cost

Under IFRS 9, financial assets measured at amortized cost are debt financial instruments with contractual cash flows that meet the SPPI test and are managed on a “hold to collect” basis. These financial assets are recognized initially at fair value plus or minus direct and incremental transaction costs, and are subsequently measured at amortized cost, using the effective interest rate method, net of an allowance for expected credit losses (ECL).

Consistent with IAS 39, loans measured at amortized cost under IFRS 9 include residential mortgages, personal loans, credit cards and most business and government loans. Most securities classified as HTM under IAS 39 and certain portfolios of treasury securities that were classified as AFS under IAS 39 (but which are managed on a “hold to collect” basis) are also classified as amortized cost under IFRS 9. Also consistent with IAS 39, most deposits with banks, securities purchased under resale agreements, cash collateral on securities borrowed and most customers’ liability under acceptances are accounted for at amortized cost under IFRS 9.

Debt financial assets measured at FVOCI

Under IFRS 9, debt financial instruments measured at FVOCI are non-derivative financial assets with contractual cash flows that meet the SPPI test and are managed on a “hold to collect and for sale” basis.

Subsequent measurement of debt instruments classified at FVOCI under IFRS 9 operates in a similar manner to AFS debt securities under IAS 39, except that the expected credit losses (ECL) impairment model must be applied to these instruments under IFRS 9. As a result, FVOCI debt instruments are measured initially at fair value, plus direct and incremental transaction costs. Subsequent to initial recognition, FVOCI debt instruments are remeasured at FVOCI, with the exception that changes in ECL allowances in addition to related foreign exchange gains or losses are recognized in the consolidated statement of income. Cumulative gains and losses previously recognized in OCI are transferred from AOCI to the consolidated statement of income when the debt instrument is sold. Realized gains and losses on sale, determined on an average cost basis, and changes in ECL allowances, are included in Gains (losses) from debt securities measured at FVOCI and amortized cost, net in the consolidated statement of income. Interest income from FVOCI debt instruments is included in Interest income. FVOCI debt instruments include our treasury securities which are managed on a “hold to collect and for sale” basis.

A debt financial instrument is classified as impaired (stage 3) when one or more events that have a detrimental impact on the estimated future cash flows of that financial instrument have occurred after its initial recognition. Evidence of impairment includes indications that the borrower is experiencing significant financial difficulties, or a default or delinquency has occurred.

Equity financial instruments designated at FVOCI

Under IFRS 9, equity financial instruments are measured at FVTPL unless an irrevocable designation is made to measure them at FVOCI. Gains or losses from changes in the fair value of equity instruments designated at FVOCI, including any related foreign exchange gains or losses, are recognized in OCI. In contrast to AFS equity securities under IAS 39, amounts recognized in OCI will not be subsequently recycled to profit or loss, with the exception of dividends. Instead, cumulative gains or losses upon derecognition of the equity instrument will be transferred within equity from AOCI to retained earnings and presented in Realized gains (losses) on equity securities designated at FVOCI reclassified to retained earnings in the consolidated statement of changes in equity. Financial assets designated as FVOCI include non-trading equity securities, primarily related to our investment in private companies and limited partnerships.

Impairment of financial assets under IAS 39

We classified a loan as impaired when, in our opinion, there was objective evidence of impairment as a result of one or more loss events that occurred after initial recognition of the loans with a negative impact on the estimated future cash flows of a loan or a portfolio of loans.

Objective evidence of impairment included indications that the borrower was experiencing significant financial difficulties, or a default or delinquency had occurred. Generally, loans on which repayment of principal or payment of interest was contractually 90 days in arrears were automatically considered impaired unless they were fully secured and in the process of collection. Notwithstanding management’s assessment of collectability, such loans were considered impaired if payments were 180 days in arrears. Exceptions were as follows:

- Credit card loans were not classified as impaired and were fully written off at the earlier of the notice of bankruptcy, settlement proposal, enlistment of credit counselling services, or when payments were contractually 180 days in arrears.
- Loans guaranteed or insured by a Canadian government (federal or provincial) or a Canadian government agency were classified as impaired only when payments were contractually 365 days in arrears.

In certain circumstances, we could modify a loan for economic or legal reasons related to a borrower’s financial difficulties. Once a loan was modified, if management still did not expect full collection of payments under the modified loan terms, the loan was classified as impaired. An impaired loan was measured at its estimated realizable value determined by discounting the expected future cash flows at the loan’s original effective interest rate. When a loan or a group of loans had been classified as impaired, interest income was recognized thereafter using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss. For credit card loans, interest was accrued only to the extent that there was an expectation of receipt.

A loan was no longer considered impaired when all past due amounts, including interest, had been recovered, and it was determined that the principal and interest were fully collectable in accordance with the original contractual terms or revised market terms of the loan with all criteria for the impaired classification having been remedied. Once a loan was modified and management expects full collection of payments under the modified loan terms, the loan was not considered impaired. No portion of cash received on an impaired loan was recognized in the consolidated statement of income until the loan returned to unimpaired status.

Loans were written off, either partially or in full, against the related allowance for credit losses when we judged that there was no realistic prospect of future recovery in respect of amounts written off. When loans were secured, this was generally after all collateral had been realized or transferred to CIBC, or

in certain circumstances, when the net realizable value of any collateral and other available information suggested that there was no reasonable expectation of further recovery. In subsequent periods, any recoveries of amounts previously written off were credited to the provision for credit losses.

Allowance for credit losses

Under IAS 39, allowance for credit losses consisted of individual and collective components:

Individual allowance

We conducted ongoing credit assessments of the majority of the business and government loan portfolios on an account-by-account basis at each reporting date and we established an allowance for credit losses when there was objective evidence that a loan is impaired.

Collective allowance

Loans were grouped in portfolios of similar credit risk characteristics and impairment was assessed on a collective basis in two circumstances:

- (i) Incurred but not yet identified credit losses – for groups of individually assessed loans for which no objective evidence of impairment had been identified on an individual basis:
 - A collective allowance was provided for losses which we estimated were inherent in the business and government portfolio as at the reporting date, but which had not yet been specifically identified from an individual assessment of the loan.
 - The collective allowance was established with reference to expected loss rates associated with different credit portfolios at different risk levels and the estimated time period for losses that were present but yet to be specifically identified. We also considered estimates of the time periods over which losses that were present would be identified and a provision taken, our view of economic and portfolio trends, and evidence of credit quality improvements or deterioration. The period between a loss occurring and its identification was estimated by management for each identified portfolio. The parameters that affected the collective allowance calculation were updated regularly, based on our experience and that of the market in general.
 - Expected loss rates were based on the risk rating of each credit facility and on the probability of default (PD) factors, as well as estimates of loss given default (LGD) associated with each risk rating. The PD factors reflected our historical loss experience and were supplemented by data derived from defaults in the public debt markets. Historical loss experience was adjusted based on current observable data to reflect the effects of current conditions. LGD estimates were based on our experience over past years.
- (ii) For groups of loans where each loan was not considered to be individually significant:
 - Residential mortgages, credit card loans, personal loans, and certain small business loan portfolios consisted of large numbers of homogeneous balances of relatively small amounts, for which collective allowances were established by reference to historical ratios of write-offs to current accounts and balances in arrears.
 - For residential mortgages, personal loans and certain small business loans, this historical loss experience enabled CIBC to determine appropriate PD and LGD parameters, which were used in the calculation of the collective allowance. For credit card loans, the historical loss experience enabled CIBC to calculate roll-rate models in order to determine an allowance amount driven by flows to write-off.
 - We also considered estimates of the time periods over which losses that were present would be identified and a provision taken, our view of current and ongoing economic and portfolio trends, and evidence of credit quality improvements or deterioration. The parameters that affected the collective allowance calculation were updated regularly, based on our experience and that of the market in general.

Individual and collective allowances were provided for off-balance sheet credit exposures that were not measured at fair value. These allowances were included in Other liabilities.

AFS debt instruments

An AFS debt instrument was identified as impaired when there was objective observable evidence about our inability to collect the contractual principal or interest.

When an AFS debt instrument was determined to be impaired, an impairment loss was recognized by reclassifying the cumulative unrealized losses in AOCI to the consolidated statement of income. Impairment losses previously recognized in the consolidated statement of income were reversed in the consolidated statement of income if the fair value subsequently increases and the increase could be objectively determined to relate to an event occurring after the impairment loss was recognized.

AFS equity instruments

Objective evidence of impairment for an investment in an AFS equity instrument existed if there had been a significant or prolonged decline in the fair value of the investment below its cost, or if there was information about significant adverse changes in the technological, market, economic, or legal environment in which the issuer operates, or if the issuer was experiencing significant financial difficulty.

When an AFS equity instrument was determined to be impaired, an impairment loss was recognized by reclassifying the cumulative unrealized losses in AOCI to the consolidated statement of income. Impairment losses previously recognized in the consolidated statement of income could not be subsequently reversed. Further decreases in fair value subsequent to the recognition of an impairment loss were recognized directly in the consolidated statement of income, and subsequent increases in fair value were recognized in OCI.

Impairment of financial assets under IFRS 9

Under IFRS 9, ECL allowances are recognized on all financial assets that are debt instruments classified either as amortized cost or FVOCI and for all loan commitments and financial guarantees that are not measured at FVTPL. The application of an ECL model represents a significant change from the incurred loss model under IAS 39. ECL allowances represent credit losses that reflect an unbiased and probability-weighted amount which is determined by evaluating a range of possible outcomes, the time value of money and reasonable and supportable information about past events, current conditions and forecasts of future economic conditions. Forward-looking information is explicitly incorporated into the estimation of ECL allowances, which involves significant judgment (see Note 5 for additional details). In contrast, the incurred loss model under IAS 39 incorporated a single best estimate, the time value of money and information about past events and current conditions.

ECL allowances for loans and acceptances are included in allowance for credit losses on the consolidated balance sheet. ECL allowances for FVOCI debt securities are included as a component of the carrying value of the securities, which are measured at fair value. ECL allowances for other financial assets are included in the carrying value of the instrument. ECL allowances for guarantees and loan commitments are included in other liabilities.

ECL allowances are measured at amounts equal to either: (i) 12-month ECL; or (ii) lifetime ECL for those financial instruments which have experienced a significant increase in credit risk since initial recognition or when there is objective evidence of impairment. In contrast, under the incurred loss model lifetime credit losses were recognized when there was objective evidence of impairment and allowances for incurred but not identified credit losses were also recognized.

The calculation of ECL allowances is based on the expected value of three probability-weighted scenarios to measure the expected cash shortfalls, discounted at the effective interest rate. A cash shortfall is the difference between the contractual cash flows that are due and the cash flows that we expect to receive. The key inputs in the measurement of ECL allowances are as follows:

- The probability of default (PD) is an estimate of the likelihood of default over a given time horizon;
- The LGD is an estimate of the loss arising in the case where a default occurs at a given time; and
- The exposure at default (EAD) is an estimate of the exposure at a future default date.

Lifetime ECL is the expected credit losses that result from all possible default events over the expected life of a financial instrument. 12-month ECL is the portion of lifetime expected credit losses that represent the expected credit losses that result from default events on the financial instrument that are possible within the 12 months after the reporting date.

Due to the inclusion of relative credit deterioration criteria and consideration of forward-looking information, lifetime credit losses are generally recognized earlier under IFRS 9.

Stage migration and significant increase in credit risk

As a result of the requirements above, financial instruments subject to ECL allowances are categorized into three stages.

For performing financial instruments:

Stage 1 is comprised of all performing financial instruments which have not experienced a significant increase in credit risk since initial recognition. We recognize 12 months of ECL for stage 1 financial instruments. In assessing whether credit risk has increased significantly, we compare the risk of a default occurring on the financial instrument as at the reporting date, with the risk of a default occurring on the financial instrument as at the date of its initial recognition.

Stage 2 is comprised of all performing financial instruments which have experienced a significant increase in credit risk since initial recognition. We recognize lifetime ECL for stage 2 financial instruments. In subsequent reporting periods, if the credit risk of the financial instrument improves such that there is no longer a significant increase in credit risk since initial recognition, then we revert to recognizing 12 months of ECL as the financial instrument has migrated back to stage 1.

We determine whether a financial instrument has experienced a significant increase in credit risk since its initial recognition on an individual financial instrument basis. Changes in the required ECL allowance, including the impact of financial instruments migrating between stage 1 and stage 2, are recorded in Provision for credit losses in the consolidated statement of income. Significant judgment is also required in the application of significant increase in credit risk (see Note 5 for additional details).

Stage 3 financial instruments are those that we have classified as impaired. We recognize lifetime ECL for all stage 3 financial instruments. We classify a financial instrument as impaired when one or more events that have a detrimental impact on the estimated future cash flows of that financial instrument have occurred after its initial recognition. Evidence of impairment includes indications that the borrower is experiencing significant financial difficulties, or a default or delinquency has occurred. Under IFRS 9, all financial instruments on which repayment of principal or payment of interest is contractually 90 days in arrears are automatically considered impaired, except for credit card loans which are classified as impaired and are fully written off when payments are contractually 180 days in arrears or at the earlier of the notice of bankruptcy, settlement proposal, or enlistment of credit counselling services. The determination of impairment was the same under IAS 39, except that under IAS 39: (i) residential mortgages guaranteed or insured by a Canadian government (federal or provincial) or a Canadian government agency were classified as impaired only when payments were contractually 365 days in arrears; and (ii) residential mortgages guaranteed or insured by a private insurer, or loans that were fully secured and in the process of collection were classified as impaired only when payments were contractually 180 days in arrears.

A financial instrument is no longer considered impaired when all past due amounts, including interest, have been recovered, and it is determined that the principal and interest are fully collectable in accordance with the original contractual terms or revised market terms of the financial instrument with all criteria for the impaired classification having been remedied.

Financial instruments are written off, either partially or in full, against the related allowance for credit losses when we judge that there is no realistic prospect of future recovery in respect of those amounts. When financial instruments are secured, this is generally after all collateral has been realized or transferred to CIBC, or in certain circumstances, when the net realizable value of any collateral and other available information suggests that there is no reasonable expectation of further recovery. In subsequent periods, any recoveries of amounts previously written off are credited to the provision for credit losses.

Purchased loans

Both purchased performing and purchased credit-impaired loans are initially measured at their acquisition date fair values. As a result of recording these loans at fair value, no allowance for credit losses is recognized in the purchase equation at the acquisition date under either IAS 39 or IFRS 9. Fair value is determined by estimating the principal and interest cash flows expected to be collected and discounting those cash flows at a market rate of interest. At the acquisition date, we classify a loan as performing where we expect timely collection of all amounts in accordance with the original contractual terms of the loan and as credit-impaired where it is probable that we will not be able to collect all contractually required payments.

For purchased performing loans, the acquisition date fair value adjustment on each loan is amortized to interest income over the expected remaining life of the loan using the effective interest rate method under both IAS 39 and IFRS 9. The remaining unamortized amounts relating to those loans are recorded in income in the period that the loan is repaid. Under IFRS 9, ECL allowances are established in Provision for credit losses in the consolidated statement of income immediately after the acquisition date based on classifying each loan in stage 1, since the acquisition date is established as the initial recognition date of purchased performing loans for the purpose of assessing whether a significant increase in credit risk has occurred. This is comparable to the requirements under IAS 39 where collective allowances were established after the acquisition date as the purchased loan portfolio turned over and to the extent that the credit quality of the acquired portfolio deteriorated. Subsequent to the acquisition date, ECL allowances are estimated in a manner consistent with our significant increase in credit risk and impairment policies that we apply to loans that we originate. Under IAS 39, actual individual allowances for credit losses were recorded as they arose subsequent to the acquisition date in a manner that was consistent with our IAS 39 impairment policy for loans that we originated.

For purchased credit-impaired loans under both IAS 39 and IFRS 9, the acquisition date fair value adjustment on each loan consists of management's estimate of the shortfall of principal and interest cash flows expected to be collected and the time value of money. The time value of money component of the fair value adjustment is amortized to interest income over the expected remaining life of the loan using the effective interest rate method. Subsequent to

the acquisition date, we regularly re-estimate the expected cash flows for purchased credit-impaired loans. Decreases in the expected cash flows will result in an increase in our ECL allowances under IFRS 9, which is consistent with the previous IAS 39 requirements. Increases in the expected cash flows will result in a recovery of the ECL allowance under IFRS 9. Under IAS 39, increases in the expected cash flows resulted in a recovery of provision for credit losses and a reduction in our allowance for credit losses, or if no allowance existed, an increase in interest income. ECL allowances for purchased credit-impaired loans are reported in stage 3.

Originated credit impaired financial assets

The accounting for originated credit impaired financial assets operates in a similar manner to the accounting for purchased credit-impaired loans in that originated credit impaired assets are initially recognized at fair value with no initial expected credit loss allowance as concerns about the collection of future cash flows is instead reflected in the origination date discount. The time value of money component of the discount is amortized to interest income over the expected remaining life of the financial asset using the effective interest rate method. Changes in expectation regarding the contractual cash flows for loans are recognized immediately in provision for credit losses and for securities are recognized in Gains (losses) from debt securities measured at FVOCI and amortized cost, net.

This accounting generally applies to financial assets that result from debt restructuring arrangements in which a previously impaired financial asset is exchanged for a new financial asset that is either recognized at a fair value that represents a deep discount to par or for which there are significant concerns over the ability to collect the contractual cash flows.

Other significant accounting policies related to the accounting for financial instruments following the application of IFRS 9 are as follows:

Determination of fair value

The transition to IFRS 9 did not impact the definition of fair value, which continues to be defined as the price that would be received to sell an asset or paid to transfer a liability between market participants in an orderly transaction in the principal market at the measurement date under current market conditions (i.e., the exit price). Fair value measurements are categorized into three levels within a fair value hierarchy (Level 1, 2 or 3) based upon the market observability of the valuation inputs used in measuring the fair value. See Note 2 for more details about fair value measurement subsequent to initial recognition by type of financial instrument.

Transaction costs

Transaction costs relating to financial instruments mandatorily measured or designated at FVTPL are expensed as incurred under IFRS 9, consistent with the accounting for transaction costs related to trading and FVO instruments under IAS 39. Transaction costs are amortized over the expected life of the instrument using the effective interest rate method for instruments measured at amortized cost under both IFRS 9 and IAS 39, and debt instruments measured at FVOCI under IFRS 9 and as AFS under IAS 39. For equity instruments designated at FVOCI under IFRS 9 and for equity instruments accounted for at AFS under IAS 39, transaction costs are included in the instrument's carrying value.

Date of recognition of securities

Under IFRS 9, we continue to account for all securities on our consolidated balance sheet using settlement date accounting, consistent with our accounting under IAS 39.

Effective interest rate

Under IFRS 9, interest income and expense for all financial instruments measured at amortized cost and for debt securities measured at FVOCI is recognized in Interest income and Interest expense using the effective interest rate method, which is similar to the requirements under IAS 39 for loans and receivables and AFS debt securities. The effective interest rate is the rate that exactly discounts estimated future cash receipts or payments through the expected life of the financial instrument to the net carrying value of the financial asset or liability upon initial recognition. When calculating the effective interest rate, we estimate future cash flows considering all contractual terms of the financial instrument, but not future credit losses.

Fees relating to loan origination, including commitment, restructuring and renegotiation fees, are considered an integral part of the yield earned on the loan and are accounted for using the effective interest rate method. Fees received for commitments that are not expected to result in a loan are included in Non-interest income over the commitment period. Loan syndication fees are included in Non-interest income on completion of the syndication arrangement, provided that the yield on the portion of the loan we retain is at least equal to the average yield earned by the other lenders involved in the financing; otherwise, an appropriate portion of the fee is deferred as unearned income and amortized to interest income using the effective interest rate method.

Under IFRS 9, interest income is recognized on stage 1 and stage 2 financial assets measured at amortized cost by applying the effective interest rate to the gross carrying amount of the financial instrument. For stage 3 financial instruments, interest income is recognized using the rate of interest used to discount the estimated future cash flows for the purpose of measuring the impairment loss and applied to the net carrying value of the financial instrument, which is similar to the methodology under IAS 39 applied to impaired loans.

Securitizations and derecognition of financial assets

Securitization of our own assets provides us with an additional source of liquidity. As we generally retain substantially all of the risks and rewards of the transferred assets, assets remain on the consolidated balance sheet and funding from these transactions is accounted for as Deposits – secured borrowing transactions.

Under both IAS 39 and IFRS 9, securitizations to non-consolidated structured entities (SEs) are accounted for as sales, with the related assets being derecognized, only where:

- Our contractual right to receive cash flows from the assets has expired;
- We transfer our contractual rights to receive the cash flows of the financial asset, and have: (i) transferred substantially all the risks and rewards of ownership, or (ii) neither retained nor transferred substantially all the risks and rewards, but have not retained control; or
- The transfer meets the criteria of a qualifying pass-through arrangement.

Derecognition of financial liabilities

Under both IFRS 9 and IAS 39, a financial liability is derecognized when the obligation under the liability is discharged, cancelled or expires. If an existing financial liability is replaced by another liability from the same lender 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, and the difference in

the respective carrying values is recognized in the consolidated statement of income. The repurchase of a debt instrument is considered an extinguishment of that debt instrument even if we intend to resell the instrument in the near term.

Financial guarantees

Financial guarantees are financial contracts that require the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the original or modified terms of a debt instrument.

Under both IAS 39 and IFRS 9, financial guarantee contracts issued by CIBC that are not classified as insurance contracts are initially recognized as a liability at fair value, adjusted for transaction costs that are directly attributable to the issuance of the guarantees, which is generally the premium received or receivable on the date the guarantee was given. Subsequently, financial guarantee liabilities are measured at the higher of the initial fair value, less cumulative amortization, and the applicable allowance. Under IFRS 9 the allowance is calculated using the ECL methodology, while under IAS 39 the allowance, if any, represented the present value of any expected payment when a payment under the guarantee had become probable. A financial guarantee that qualifies as a derivative is remeasured at fair value as at each reporting date and reported as Derivative instruments in assets or liabilities, as appropriate.

Mortgage commitments

Mortgage interest rate commitments are extended to our retail clients in contemplation of borrowing to finance the purchase of homes under mortgages to be funded by CIBC in the future. These commitments are usually for periods of up to 120 days and generally entitle the borrower to receive funding at the lower of the interest rate at the time of the commitment and the rate applicable at the funding date. We use financial instruments, such as interest rate derivatives, to economically hedge our exposure to an increase in interest rates. Based on our estimate of the commitments expected to be exercised, a financial liability would be recognized on our consolidated balance sheet, to which we apply the FVO. We also carry the associated economic hedges at fair value on the consolidated balance sheet. Changes in the fair value of the FVO commitment liability and the associated economic hedges are included in gains (losses) from financial instruments measured/designated at FVTPL, net under IFRS 9 and FVO gains (losses), net under IAS 39. In addition, since the fair value of the commitments is priced into the mortgage, the difference between the mortgage amount and its fair value at funding is recognized in the consolidated statement of income to offset the carrying value of the mortgage commitment that is released upon its expiry.

Offsetting of financial assets and financial liabilities

Financial assets and financial liabilities are offset, and the amount presented net, when we have a legally enforceable right to set off the recognized amounts and intend to settle on a net basis or to realize the asset and settle the liability simultaneously.

Acceptances and customers' liability under acceptances

Acceptances constitute a liability of CIBC on negotiable instruments issued to third parties by our customers. We earn a fee for guaranteeing and then making the payment to the third parties. The amounts owed to us by our customers in respect of these guaranteed amounts are reflected in assets as Customers' liability under acceptances.

Securities purchased under resale agreements and obligations related to securities sold under repurchase agreements

Securities purchased under resale agreements are treated as collateralized lending transactions as they represent the purchase of securities affected with a simultaneous agreement to sell them back at a future date at a fixed price, which is generally near term. These transactions are classified and measured at amortized cost under IFRS 9, as they meet the SPPI criteria and are managed under a hold to collect business model. Under IAS 39, they were also generally accounted for at amortized cost unless they were designated under the FVO. Under IFRS 9, an ECL is applied to these instruments, while under IAS 39 an allowance was only provided to the extent there was an impairment. Under both IFRS 9 and IAS 39 interest income is accrued using the effective interest rate method and is included in Interest income – Securities borrowed or purchased under resale agreements in the consolidated statement of income.

Similarly, securities sold under agreements to repurchase are treated as collateralized borrowing transactions with interest expense accrued using the effective interest rate method and are included in Interest expense – Securities lent or sold under repurchase agreements in the consolidated statement of income.

Cash collateral on securities borrowed and securities lent

The right to receive back cash collateral paid and the obligation to return cash collateral received on borrowing and lending of securities, which is generally near term, is recognized as cash collateral on securities borrowed and securities lent, respectively. These transactions are classified and measured at amortized cost as they meet the SPPI criteria and are managed under a hold to collect business model. Under IFRS 9, an ECL is applied to these instruments, while under IAS 39 an allowance was only provided to the extent there was an impairment. Interest income on cash collateral paid and interest expense on cash collateral received together with the security borrowing fees and security lending income are included in Interest income – Securities borrowed or purchased under resale agreements and Interest expense – Securities lent or sold under repurchase agreements, respectively. For securities borrowing and lending transactions where securities are pledged or received as collateral, securities pledged by CIBC remain on the consolidated balance sheet and securities received by CIBC are not recognized on the consolidated balance sheet.

Derivatives

We use derivative instruments for both asset/liability management (ALM) and trading purposes. The derivatives used for ALM purposes allow us to manage financial risks, such as movements in interest and foreign exchange rates, while our derivative trading activities are primarily driven by client trading activities. We may also take proprietary trading positions with the objective of earning income.

Under both IAS 39 and IFRS 9, all derivative instruments are recognized initially, and are measured subsequently, at fair value and are reported as assets where they have a positive fair value and as liabilities where they have a negative fair value, in both cases as derivative instruments. Any realized and unrealized gains or losses on derivatives used for trading purposes were recognized immediately in Trading income (loss) under IAS 39 and are recognized in Gains (losses) from financial instruments measured/designated at FVTPL, net under IFRS 9. The accounting for derivatives used for ALM purposes depends on whether they qualify for hedge accounting as discussed below.

Fair values of exchange-traded derivatives are based on quoted market prices. Fair values of over-the-counter (OTC) derivatives, including OTC derivatives that are centrally cleared, are obtained using valuation techniques, including discounted cash flow models and option pricing models. See Note 12 for further information on the valuation of derivatives.

Derivatives used for ALM purposes that qualify for hedge accounting

As permitted under IFRS 9, we have elected to continue to apply the hedge accounting requirements of IAS 39. However, we have adopted the new hedge accounting disclosure requirements under the amendments to IFRS 7 “Financial Instruments: Disclosures”. Details of the additional disclosures are provided in Note 13.

We apply hedge accounting for derivatives held for ALM purposes that meet specified criteria. There are three types of hedges: fair value, cash flow and hedges of net investments in foreign operations (NIFOs). When hedge accounting is not applied, the change in the fair value of the derivative is recognized in the consolidated statement of income (see “Derivatives used for ALM purposes that are not designated for hedge accounting” below).

In order for derivatives to qualify for hedge accounting, the hedge relationship must be designated and formally documented at its inception in accordance with IAS 39. The particular risk management objective and strategy, the specific asset, liability or cash flow being hedged, as well as how hedge effectiveness is assessed, are documented. Hedge effectiveness requires a high correlation of changes in fair values or cash flows between the hedged and hedging items.

We assess the effectiveness of derivatives in hedging relationships, both at inception and on an ongoing basis. Ineffectiveness results to the extent that the change in the fair value of the hedging derivative differs from the change in the fair value of the hedged risk in the hedged item; or the cumulative change in the fair value of the hedging derivative exceeds the cumulative change in the fair value of expected future cash flows of the hedged item. The amount of ineffectiveness of hedging instruments is recognized immediately in the consolidated statement of income.

Fair value hedges

We designate fair value hedges primarily as part of interest rate risk management strategies that use derivatives to hedge changes in the fair value of financial instruments with fixed interest rates. Changes in fair value attributed to the hedged interest rate risk are accounted for as basis adjustments to the hedged financial instruments and are included in Net interest income. Changes in fair value from the hedging derivatives are also included in Net interest income. Any differences between the two represent hedge ineffectiveness that is included in Net interest income.

Similarly, for hedges of foreign exchange risk, changes in the fair value from the hedging derivatives and non-derivatives are included in FXOTT. Changes in the fair value of the hedged item from the hedged foreign exchange risk are accounted for as basis adjustments and are also included in FXOTT. Any difference between the two represents hedge ineffectiveness.

If the hedging instrument expires or is sold, terminated or exercised, or where the hedge no longer meets the criteria for hedge accounting, the hedge relationship is terminated and the basis adjustment applied to the hedged item is amortized over the remaining term of the hedged item. If the hedged item is derecognized, the unamortized basis adjustment is recognized immediately in the consolidated statement of income.

Cash flow hedges

We designate cash flow hedges as part of interest rate risk management strategies that use derivatives to mitigate our risk from variable cash flows by effectively converting certain variable-rate financial instruments to fixed-rate financial instruments, and as part of foreign exchange rate risk management strategies to hedge forecasted foreign currency denominated cash flows. We also designate cash flow hedges to hedge changes in CIBC’s share price in respect of certain cash-settled share-based payment awards.

The effective portion of the change in fair value of the derivative instrument is recognized in OCI until the variability in cash flows being hedged is recognized in the consolidated statement of income in future accounting periods, at which time an appropriate portion of the amount that was in AOCI is reclassified into the consolidated statement of income. The ineffective portion of the change in fair value of the hedging derivative is included in Net interest income, FXOTT, or Non-interest expenses immediately as it arises.

If the hedging instrument expires or is sold, terminated or exercised, or where the hedge no longer meets the criteria for hedge accounting, the hedge relationship is terminated. Upon termination of the hedge relationship, any remaining amount in AOCI remains therein until it is recognized in the consolidated statement of income when the variability in cash flows hedged or the hedged forecast transaction is ultimately recognized in the consolidated statement of income. When the forecasted transaction is no longer expected to occur, the related cumulative gain or loss in AOCI is recognized immediately in the consolidated statement of income.

Hedges of NIFOs with a functional currency other than the Canadian dollar

We may designate NIFO hedges to mitigate the foreign exchange risk on our NIFOs with a functional currency other than the Canadian dollar.

These hedges are accounted for in a similar manner to cash flow hedges. The change in fair value of the hedging instrument relating to the effective portion is recognized in OCI. The change in fair value of the hedging instrument attributable to the forward points and relating to the ineffective portion are recognized immediately in FXOTT. Gains and losses in AOCI are reclassified to the consolidated statement of income upon the disposal or partial disposal of the investment in the foreign operation, as explained in the “Foreign currency translation” policy above.

Derivatives used for ALM purposes that are not designated for hedge accounting

The change in fair value of the derivatives not designated as accounting hedges but used to economically hedge FVO assets or liabilities was included in FVO gains (losses), net under IAS 39 and Gains (losses) from financial instruments measured/designated at FVTPL, net under IFRS 9. The change in fair value of other derivatives not designated as accounting hedges but used for other economic hedging purposes is included in FXOTT, Non-interest income, or in the case of economic hedges of cash-settled share-based payment obligations, in compensation expense, as appropriate.

Embedded derivatives

Under both IAS 39 and IFRS 9, derivatives embedded in financial liabilities are accounted for as separate derivatives when their economic characteristics and risks are not closely related to those of the host instrument and the terms of the embedded derivative represent those of a freestanding derivative in situations where the combined instrument is not classified as FVTPL or designated as FVTPL using the FVO. These embedded derivatives, which are classified together with the host instrument on the consolidated balance sheet, are measured at fair value, with changes therein included in the consolidated statement of income. The residual amount of the host liability is accreted to its maturity value through Interest income and Interest expense, respectively, using the effective interest rate method.

Gains at inception on derivatives embedded in financial instruments bifurcated for accounting purposes are not recognized at inception; instead they are recognized over the life of the residual host instrument. Where an embedded derivative is separable from the host instrument but the fair value, as at the acquisition or reporting date, cannot be reliably measured separately or is otherwise not bifurcated, the entire combined contract is measured at FVTPL.

Under IFRS 9, embedded derivatives are no longer bifurcated from financial assets as was the case under IAS 39. Instead the financial asset is classified in its entirety into the appropriate classification at initial recognition through an assessment of the contractual cash flow characteristics of the asset and the business model under which it is managed.

Accumulated other comprehensive income

AOCI is included on the consolidated balance sheet as a separate component of total equity, net of income tax. It includes net unrealized gains and losses on FVOCI debt and equity securities under IFRS 9 (AFS under IAS 39), the effective portion of gains and losses on derivative instruments designated within effective cash flow hedges, unrealized foreign currency translation gains and losses on foreign operations with a functional currency other than the Canadian dollar net of gains or losses on related hedges, net gains (losses) related to fair value changes of FVO liabilities attributable to changes in own credit risk, and net gains (losses) on post-employment defined benefit plans.

Treasury shares

Where we repurchase our own equity instruments, these instruments are treated as treasury shares and are deducted from equity at their cost with any gain or loss recognized in Contributed surplus or Retained earnings as appropriate. No gain or loss is recognized in the consolidated statement of income on the purchase, sale, issue or cancellation of our own equity instruments. Any difference between the carrying value and the consideration, if reissued, is also included in Contributed surplus.

Liabilities and equity

We classify financial instruments as a liability or equity based on the substance of the contractual arrangement. An instrument is classified as a liability if it is a contractual obligation to deliver cash or another financial asset, or to exchange financial assets or financial liabilities at potentially unfavourable terms. A contract is also classified as a liability if it is a non-derivative and could obligate us to deliver a variable number of our own shares or it is a derivative other than one that can be settled by the delivery of a fixed amount of cash or another financial asset for a fixed number of our own equity instruments. An instrument is classified as equity if it evidences a residual interest in our assets after deducting all liabilities. The components of a compound financial instrument are classified and accounted for separately as assets, liabilities, or equity as appropriate. Incremental costs directly attributable to the issuance of equity instruments are shown in equity, net of income tax.

Land, buildings and equipment

Land is recognized initially at cost and is subsequently measured at cost less any accumulated impairment losses. Buildings, furniture, equipment and leasehold improvements are recognized initially at cost and are subsequently measured at cost less accumulated amortization and any accumulated impairment losses.

Depreciation commences when the assets are available for use and is recognized on a straight-line basis to depreciate the cost of these assets to their estimated residual value over their estimated useful lives. The estimated useful lives are as follows:

- Buildings – 40 years
- Computer equipment – 3 to 7 years
- Office furniture and other equipment – 4 to 15 years
- Leasehold improvements – over the estimated useful life

Depreciation methods, useful lives and residual values are reviewed at each annual reporting date and are adjusted if appropriate.

Gains and losses on disposal are included in Non-interest income – Other.

We consider a portion of land and a building underlying a finance lease arrangement as investment property since we sub-lease this portion to third parties. Our investment property is recognized initially at cost and is subsequently measured at cost less accumulated amortization and any accumulated impairment losses. Our investment property is depreciated on a straight-line basis over its estimated useful life, being the term of the lease.

Rental income is included in Non-interest income – Other.

Goodwill, software and other intangible assets

Goodwill represents the excess of the purchase price over the fair value of the net identifiable assets, liabilities and contingent liabilities acquired in business combinations. Identifiable intangible assets are recognized separately from goodwill when they are separable or arise from contractual or other legal rights, and have fair values that can be reliably measured.

Goodwill is not amortized, but is subject to impairment review at least annually or more frequently if there are indicators that the goodwill may be impaired. Refer to the "Impairment of non-financial assets" policy below.

Intangible assets represent software and customer relationships, core deposit intangibles, investment management contracts, and brand names recognized as part of past acquisitions. Intangible assets with definite useful lives are measured at cost less accumulated amortization and accumulated impairment losses. Each intangible asset is assessed for legal, regulatory, contractual, competitive or other factors to determine if the useful life is definite. Intangible assets with definite useful lives are amortized over their estimated useful lives, which are as follows:

- Software – 5 to 10 years
- Contract-based intangibles – 8 to 15 years
- Core deposit and customer relationship intangibles – 3 to 16 years

Intangible assets with indefinite useful lives are measured at cost less any accumulated impairment losses. Indefinite life intangible assets are tested for impairment at least annually and whenever there is an indication that the asset may be impaired. Refer to the "Impairment of non-financial assets" policy below.

Impairment of non-financial assets

The carrying values of non-financial assets with definite useful lives, including buildings and equipment, investment property, and intangible assets with definite useful lives are reviewed to determine whether there is any indication of impairment. Goodwill and intangible assets with indefinite useful lives are tested for impairment at least annually, and whenever there is an indication that the asset may be impaired. If any such indication of impairment exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss, if any.

For the purpose of reviewing non-financial assets with definite useful lives for impairment, asset groups are reviewed at their lowest level for which identifiable cash inflows are largely independent of cash inflows of other assets or groups of assets. This grouping is referred to as a cash-generating unit (CGU).

Corporate assets do not generate separate cash inflows. Corporate assets are tested for impairment at the minimum collection of CGUs to which the corporate asset can be allocated reasonably and consistently.

The recoverable amount is the greater of fair value less costs to sell and value in use. Value in use is the present value of the future cash flows expected to be derived from the asset or CGU. When the carrying value exceeds its recoverable amount, an impairment loss equal to the difference between the two amounts is recognized in the consolidated statement of income. If an impairment subsequently reverses, the carrying value of the asset is increased to the extent that the carrying value of the underlying assets does not exceed the carrying value that would have been determined, net of depreciation or amortization, if no impairment had been recognized. Any impairment reversal is recognized in the consolidated statement of income in the period in which it occurs.

Goodwill is assessed for impairment based on the group of CGUs expected to benefit from the synergies of the business combination, and the lowest level at which management monitors the goodwill. Any potential goodwill impairment is identified by comparing the recoverable amount of the CGU grouping to which the goodwill is allocated to its carrying value including the allocated goodwill. If the recoverable amount is less than its carrying value, an impairment loss is recognized in the consolidated statement of income in the period in which it occurs. Impairment losses on goodwill are not subsequently reversed if conditions change.

Income taxes

Income tax comprises current tax and deferred tax. Income tax is recognized in the consolidated statement of income, except to the extent that it relates to items recognized in OCI or directly in equity, in which case it is recognized accordingly.

Current tax is the tax expected to be payable on the taxable profit for the year, calculated using tax rates enacted or substantively enacted as at the reporting date, and any adjustment to tax payable in respect of previous years. Current tax assets and liabilities are offset when CIBC intends to settle on a net basis and the legal right to offset exists.

Deferred tax is recognized on temporary differences between the carrying value of assets and liabilities on the consolidated balance sheet and the corresponding amounts attributed to such assets and liabilities for tax purposes. Deferred tax liabilities are generally recognized for all taxable temporary differences unless the temporary differences relate to our NIFOs and will not reverse in the foreseeable future. Deferred tax assets, other than those arising from our NIFOs, are recognized to the extent that it is probable that future taxable profits will be available against which deductible temporary differences can be utilized. Deferred tax assets arising from our NIFOs are recognized for deductible temporary differences which are expected to reverse in the foreseeable future to the extent that it is probable that future taxable profits will be available against which these deductible temporary differences can be utilized. Deferred tax is not recognized for temporary differences on the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable income, or for taxable temporary differences arising on the initial recognition of goodwill.

Deferred tax is measured at the tax rates that are expected to be applied to the temporary differences when they reverse, based on the laws that have been enacted or substantively enacted as at the reporting date.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets and liabilities and they relate to income taxes levied by the same tax authority on the same taxable entity or tax reporting group.

Pension and other post-employment benefits

We are the sponsor of a number of employee benefit plans. These plans include both defined benefit and defined contribution pension plans, and various other post-employment benefit plans including post-retirement medical and dental benefits.

Defined benefit plans

The cost of pensions and other post-employment benefits earned by employees is actuarially determined separately for each plan using the projected unit credit method and our best estimate of salary escalation, retirement ages of employees, mortality and expected health-care costs. This represents CIBC's defined benefit obligation, which is measured as at the reporting date. The discount rate used to measure the defined benefit obligation is based on the yield of a portfolio of high-quality corporate bonds denominated in the same currency in which the benefits are expected to be paid and with terms to maturity that, on average, match the terms of the defined benefit obligation.

Plan assets are measured at fair value as at the reporting date.

The net defined benefit asset (liability) represents the present value of the defined benefit obligation less the fair value of plan assets. The net defined benefit asset (liability) is included in Other assets and Other liabilities, respectively.

Current service cost reflects the cost of providing post-employment benefits earned by employees in the current period. Current service cost is calculated as the present value of the benefits attributed to the current year of service and is recognized in the consolidated statement of income. The current service cost is calculated using a separate discount rate to reflect the longer duration of future benefit payments associated with the additional year of service to be earned by the plan's active participants.

Past service costs arising from plan amendments or curtailments are recognized in net income in the period in which they arise.

Net interest income or expense comprises interest income on plan assets and interest expense on the defined benefit obligation. Interest income is calculated by applying the discount rate to the plan assets, and interest expense is calculated by applying the discount rate to the defined benefit obligation. Net interest income or expense is recognized in the consolidated statement of income.

Actuarial gains and losses represent changes in the present value of the defined benefit obligation which result from changes in actuarial assumptions and differences between previous actuarial assumptions and actual experience, and from differences between the actual return on plan assets and assumed interest income on plan assets. Net actuarial gains and losses are recognized in OCI in the period in which they arise and are not subject to subsequent reclassification to net income. Cumulative net actuarial gains and losses are included in AOCI.

When the calculation results in a net defined benefit asset, the recognized asset is limited to the present value of economic benefits available in the form of future refunds from the plan or reductions in future contributions to the plan (the asset ceiling). For plans where we do not have an unconditional right to a refund of surplus, we determine the asset ceiling by reference to future economic benefits available in the form of reductions in future contributions to the plan, in which case the present value of economic benefits is calculated giving consideration to minimum funding requirements for future service that apply to the plan. Where a reduction in future contributions to the plan is not currently realizable at the reporting date, we estimate whether we will have the ability to reduce contributions for future service at some point during the life of the plan by taking into account, among other things, expected future returns on plan assets. If it is anticipated that we will not be able to recover the value of the net defined benefit asset, after considering minimum funding requirements for future service, the net defined benefit asset is reduced to the amount of the asset ceiling.

When the payment in the future of minimum funding requirements related to past service would result in a net defined benefit surplus, or an increase in a net defined benefit surplus, the minimum funding requirements are recognized as a liability to the extent that the surplus would not be fully available as a refund or a reduction in future contributions. Any funded status surplus is limited to the present value of future economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan.

Defined contribution plans

Costs for defined contribution plans are recognized during the year in which the service is provided.

Other long-term employee benefits

CIBC sponsors a closed long-term disability plan that is classified as a long-term defined benefit arrangement. As the amount of the long-term disability benefit does not depend on the length of service, the obligation is recognized when an event occurs that gives rise to an obligation to make payments. CIBC also offers other medical and dental benefits to employees while on long-term disability.

The amount of other long-term employee benefits is actuarially calculated using the projected unit credit method. Under this method, the benefit is discounted to determine its present value. The methodology used to determine the discount rate used to value the long-term employee benefit obligation is consistent with that for pension and other post-employment benefit plans. Actuarial gains and losses and past service costs are recognized in the consolidated statement of income in the period in which they arise.

Share-based payments

We provide compensation to certain employees and directors in the form of share-based awards.

Compensation expense for share-based awards is recognized from the service commencement date to the earlier of the contractual vesting date or the employee's retirement eligible date. For grants regularly awarded in the annual incentive compensation cycle (annual incentive grant), the service commencement date is considered to be the start of the fiscal year that precedes the fiscal year in which the grant is made. The service commencement date in respect of special awards granted outside of the annual cycle is the grant date. The amount of compensation expense recognized is based on management's best estimate of the number of share-based awards expected to vest, including estimates of expected forfeitures, which are revised periodically as appropriate. For the annual incentive grant, compensation expense is recognized from the service commencement date based on the estimated fair value of the forthcoming grant with the estimated fair value adjusted to the actual fair value at the grant date.

Under the Restricted Share Award (RSA) plans, where grants are settled in the cash equivalent of common shares, changes in the obligation which arise from fluctuations in the market price of common shares, net of related hedges, are recognized in the consolidated statement of income as compensation expense in proportion to the award recognized. Under the Restricted Stock plan, where restricted stock is granted and settled in common shares, compensation expense is based on the grant date fair value. Compensation expense results in a corresponding increase to contributed surplus. When the restricted stock vests and is released from restriction, the amount recognized in Contributed surplus is credited to common share capital.

Under the Performance Share Unit (PSU) plan, where grants are settled in the cash equivalent of common shares, changes in the obligation which arise from fluctuations in the market price of common shares, and revised estimates of the performance factor, net of related hedges, are recognized in the consolidated statement of income as compensation expense in proportion to the award recognized. The performance factor ranges from 75% to 125% of the initial number of units awarded based on CIBC's performance relative to the other major Canadian banks.

Compensation expense in respect of the Employee Stock Option Plan (ESOP) is based on the grant date fair value. Where the service commencement date precedes the grant date, compensation expense is recognized from the service commencement date based on the estimated fair value of the award at the grant date, with the estimated fair value adjusted to the actual fair value at the grant date. Compensation expense results in a corresponding increase to contributed surplus. If the ESOP award is exercised, the proceeds we receive, together with the amount recognized in Contributed surplus, are credited to common share capital. If the ESOP award expires unexercised, the compensation expense remains in Contributed surplus.

As part of our acquisition of Wellington Financial Fund V LP (Wellington Financial) in the first quarter of 2018, equity-settled awards in the form of exchangeable shares with specific service and non-market performance vesting conditions were issued to selected employees. Compensation expense in respect of the exchangeable shares is based on the grant date fair value, adjusted for changes in the estimated impact of the non-market performance conditions.

Compensation in the form of Deferred Share Units (DSUs) issued pursuant to the Deferred Share Unit Plan, the Deferred Compensation Plan (DCP), and the Directors' Plan, entitle the holder to receive the cash equivalent of a CIBC common share. At the time DSUs are granted, the related expense in respect of the cash compensation that an employee or director would otherwise receive would have been fully recognized. Changes in the obligations which arise from fluctuations in the market price of common shares, net of related hedges, are recognized in the consolidated statement of income as compensation expense for employee DSUs and as Non-interest expense – Other for Directors' DSUs.

Our contributions under the Employee Share Purchase Plan (ESPP) are expensed as incurred.

The impact due to changes in common share price in respect of cash-settled share-based compensation under the RSA and PSU plans is hedged through the use of derivatives. We designate these derivatives within cash flow hedge accounting relationships. The effective portion of the change in fair value of these derivatives is recognized in OCI and is reclassified into compensation expense, within the consolidated statement of income, over the period that the hedged awards impact the consolidated statement of income. The ineffective portion of the change in fair value of the hedging derivatives is recognized in the consolidated statement of income immediately as it arises.

Provisions and contingent liabilities

Provisions are liabilities of uncertain timing or amount. A provision is recognized when we have a present legal or constructive obligation as a result of a past event, it is probable that an outflow of economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. The provision is recognized as the best estimate of the amount required to settle the obligation at the reporting date, taking into account the risk and uncertainties related to the obligation. Where material, provisions are discounted to reflect the time value of money and the increase in the obligation due to the passage of time is presented as Interest expense in the consolidated statement of income.

Contingent liabilities are possible obligations that arise from past events whose existence will be confirmed only by the occurrence, or non-occurrence, of one or more uncertain future events not wholly within the control of CIBC, or are present obligations that have arisen from past events but are not recognized because it is not probable that settlement will require the outflow of economic benefits.

Provisions and contingent liabilities are disclosed in the consolidated financial statements.

Fee and commission income

The recognition of fee and commission income is determined by the purpose of the fee or commission and the basis of accounting for any associated financial instrument. Income earned on completion of a significant act is recognized when the act is completed. Income earned from the provision of services is recognized as revenue as the services are provided. Income which forms an integral part of the effective interest rate of a financial instrument is recognized as an adjustment to the effective interest rate.

Underwriting and advisory fees, and commissions on securities transactions are recognized as revenue over the period that the related services are provided or at the time the related services are completed.

Deposit and payment fees and insurance fees consist of monthly and annual fees that are recognized over the period that the related services are provided, and transactional fees that are recognized at the time the related services are provided.

Card fees primarily include interchange income, overlimit fees, cash advance fees, and annual fees. Card fees are recognized as billed, except for annual fees, which are recognized over the 12-month period to which they relate, and the portion of interchange income related to loyalty points, which is recognized when the loyalty points are redeemed.

Investment management fees are primarily based on the respective value of the assets under management (AUM) or assets under administration (AUA) and are recognized over the period that the related services are provided. Investment management fees relating to our asset management and private wealth management business are generally calculated based on point-in-time AUM balances, whereas investment management fees relating to our retail brokerage business are generally calculated based on point-in-time AUA balances. Custodial fees are recognized as revenue over the applicable service period, which is generally the contract term.

Mutual fund fees are recognized over the period that the mutual funds are managed and are based upon the daily net asset values of the respective mutual funds.

Earnings per share

We present basic and diluted EPS for our common shares.

Basic EPS is computed by dividing net income for the period attributable to CIBC common shareholders by the weighted-average number of common shares outstanding during the period.

Diluted EPS is computed by dividing net income for the period attributable to CIBC common shareholders by the weighted-average number of diluted common shares outstanding for the period. Diluted common shares reflect the potential dilutive effect of contingently issuable shares and the exercise of stock options based on the treasury stock method. The number of contingently issuable shares included in diluted EPS is based on the number of shares that would be issuable if the end of the reporting period were the end of the contingency period. For stock options, the treasury stock method determines the number of incremental common shares by assuming that outstanding stock options, whose exercise price is less than the average market price of common shares during the period, are exercised and then reduced by the number of common shares assumed to be repurchased with the exercise proceeds from the assumed exercise of the options. When there is a loss attributable to CIBC common shareholders, diluted EPS equals basic EPS. The number of contingently issuable shares included in diluted EPS is based on the number of shares that would be issuable if the end of the reporting period were the end of the contingency period.

Transition impact from adoption of IFRS 9

As indicated above, CIBC adopted IFRS 9 in place of IAS 39 as of November 1, 2017. As permitted, we did not restate our prior period comparative consolidated financial statements, which are reported under IAS 39 and are therefore not comparable to the information presented for 2018. Differences in the carrying amounts of financial instruments that resulted from the adoption of IFRS 9, other than from the voluntary adoption of the "own credit" provisions, have been recognized in our opening November 1, 2017 retained earnings and AOCI as if we had always followed the requirements of IFRS 9. The following table reconciles the carrying amounts under IAS 39 to the carrying amounts under IFRS 9, and the impact, net of tax, on shareholders' equity and total equity due to the transition to IFRS 9 on November 1, 2017:

\$ millions	IAS 39 carrying amount as at Oct. 31, 2017	Reclassification	Remeasurements	IFRS 9 carrying amount as at Nov. 1, 2017
ASSETS				
Cash and non-interest-bearing deposits with banks	\$ 3,440	\$ –	\$ –	\$ 3,440
Interest-bearing deposits with banks	10,712	–	–	10,712
Securities				
Trading and FVO securities				
Opening balance	50,827			
To securities mandatorily measured and designated at FVTPL		(50,827) ⁽¹⁾		
Closing balance				–
AFS and HTM securities				
Opening balance	42,592			
To debt securities measured at FVOCI		(32,945) ⁽²⁾		
To equity securities designated at FVOCI		(459) ⁽³⁾		
To securities mandatorily measured at FVTPL		(1,092) ⁽⁴⁾		
To securities measured at amortized cost		(8,096) ⁽⁵⁾		
Closing balance				–
Securities mandatorily measured and designated at FVTPL				
Opening balance	–			
From AFS securities		1,092 ⁽⁴⁾		
From trading and FVO securities		50,827 ⁽¹⁾		
From loans		12 ⁽⁴⁾		
Closing balance				51,931
Debt securities measured at FVOCI				
Opening balance	–			
From AFS securities		32,945 ⁽²⁾		
Closing balance				32,945
Equity securities designated at FVOCI				
Opening balance	–			
From AFS securities		459 ⁽³⁾		
Closing balance				459
Securities measured at amortized cost				
Opening balance	–			
From AFS and HTM securities		8,110 ⁽⁵⁾		
Closing balance				8,110
	93,419	26	–	93,445
Cash collateral on securities borrowed	5,035	–	–	5,035
Securities purchased under resale agreements	40,383 ⁽⁶⁾	–	–	40,383
Loans				
Loans, net of allowance for credit losses	356,734	(375) ⁽⁴⁾	(138) ⁽⁷⁾	356,221
Loans mandatorily measured at FVTPL	–	363 ⁽⁴⁾	–	363
	356,734	(12)	(138)	356,584
Other	55,541	2	25	55,568
Total assets	\$ 565,264	\$ 16	\$ (113)	\$ 565,167
LIABILITIES AND EQUITY				
Deposits ⁽⁸⁾	\$ 439,706	\$ –	\$ –	\$ 439,706
Cash collateral on securities lent	2,024	–	–	2,024
Obligations related to securities sold under repurchase agreements	27,971	–	–	27,971
Subordinated indebtedness	3,209	–	–	3,209
Obligations related to securities sold short	13,713	–	–	13,713
Other	47,404	–	(6)	47,398
Total liabilities	534,027	–	(6)	534,021
Equity				
Preferred shares	1,797	–	–	1,797
Common shares	12,548	–	–	12,548
Contributed surplus	137	–	–	137
Retained earnings	16,101	4	(148)	15,957
Accumulated other comprehensive income				
Opening balance	452			
Reclassification of AFS debt securities to securities measured at amortized cost		16		
Reclassification of AFS equity securities to securities mandatorily measured at FVTPL		(4)		
Recognition of ECL under IFRS 9 on debt securities measured at FVOCI			45	
Closing balance				509
Total shareholders' equity	31,035	16	(103)	30,948
Non-controlling interests	202	–	(4)	198
Total equity	31,237	16	(107)	31,146
	\$ 565,264	\$ 16	\$ (113)	\$ 565,167

(1) In our structured credit run-off portfolio, certain securities have been reclassified from FVO to securities mandatorily measured at FVTPL.

(2) Certain AFS debt securities have been reclassified to debt securities measured at FVOCI as the securities met the "solely payment of principal and interest" criteria under IFRS 9 and are managed under a "hold to collect and to sell" business model.

(3) Certain securities have been reclassified from AFS to equity securities designated at FVOCI.

(4) Certain asset-backed securities and asset-backed loans have been reclassified from either AFS or loans to securities or loans mandatorily measured at FVTPL.

(5) Certain debt securities have been reclassified from AFS to securities measured at amortized cost as they met the "solely payment of principal and interest" criteria under IFRS 9 and are held within a business model whose objective is to hold assets to collect the contractual cash flows. The fair value of these securities that were still held at October 31, 2018 was \$3,970 million. The change in fair value of these securities that would have been recognized in OCI during the year was a loss of \$35 million had these securities continued to be measured at fair value through OCI. In addition, certain HTM securities that are managed under a "hold to collect" business model were reclassified to securities measured at amortized cost.

(6) Includes \$1,450 million of certain securities purchased under resale agreements that are measured at FVTPL using the FVO under IAS 39 and as mandatorily measured at FVTPL under IFRS 9.

(7) Comprises measurement adjustments of \$69 million related to ECL and \$69 million related to the application of the effective interest rate method recognized upon transition to IFRS 9.

(8) Includes FVO deposits of \$5,947 million under both IAS 39 and IFRS 9.

The most significant impact was in respect of the transition from an incurred loss model under IAS 39 to an expected credit loss model under IFRS 9 for the determination of allowances for credit losses. For our business and government portfolios, the individually assessed allowances for impaired instruments recognized under IAS 39 have generally been replaced by stage 3 allowances under IFRS 9, while the collective allowances for performing financial instruments have generally been replaced by either stage 1 or stage 2 allowances under IFRS 9. For our retail portfolios, the portion of our collective allowances that relate to impaired financial instruments under IAS 39 have generally been replaced by stage 3 allowances under IFRS 9, while the performing portion of our collective allowances have generally been replaced by either stage 1 or stage 2 allowances under IFRS 9.

The following table reconciles the closing allowance for credit losses in accordance with IAS 39 as at October 31, 2017, to the opening ECL allowance determined in accordance with IFRS 9 as at November 1, 2017:

\$ millions, as at	October 31, 2017				November 1, 2017			
	IAS 39		Total	Remeasurements	IFRS 9			Total ⁽¹⁾
	Individual allowance	Collective allowance			Stage 1	Stage 2	Stage 3	
Loans								
Residential mortgages	\$ 2	\$ 201	\$ 203	\$ 19	\$ 28	\$ 43	\$ 151	\$ 222
Personal	7	488	495	(19)	164	202	110	476
Credit card	–	386	386	128	101	413	–	514
Business and government	183	470	653	(65)	234	150	204	588
	\$ 192	\$ 1,545	\$ 1,737	\$ 63	\$ 527	\$ 808	\$ 465	\$ 1,800
Comprises:								
Loans	\$ 192	\$ 1,426	\$ 1,618	\$ 69	\$ 474	\$ 748	\$ 465	\$ 1,687
Undrawn credit facilities and other off-balance sheet exposures ⁽²⁾	–	119	119	(6)	53	60	–	113
Securities								
Debt securities measured at FVOCI ⁽³⁾	n/a	n/a	n/a	\$ 49	\$ 14	\$ 35	\$ –	\$ 49

(1) In addition, ECL allowances for other financial assets classified as amortized cost were immaterial as at November 1, 2017.

(2) Included in other liabilities on the consolidated balance sheet.

(3) The ECL allowances for debt securities measured at FVOCI are recognized in AOCI and do not affect the carrying value on our consolidated balance sheet, as these securities are measured at fair value.

n/a Not applicable under IAS 39.

Note 2 | Fair value measurement

This note presents the fair values of financial instruments and explains how we determine those values. Note 1, "Basis of preparation and summary of significant accounting policies" sets out the accounting treatment for each measurement category of financial instruments.

Fair value is defined as the price that would be received to sell an asset, or paid to transfer a liability, between market participants in an orderly transaction in the principal market at the measurement date under current market conditions (i.e., the exit price). The determination of fair value requires judgment and is based on market information, where available and appropriate. Fair value measurements are categorized into three levels within a fair value hierarchy (Level 1, 2 or 3) based on the valuation inputs used in measuring the fair value, as outlined below.

- Level 1 – Unadjusted quoted market prices in active markets for identical assets or liabilities we can access at the measurement date. Bid prices, ask prices or prices within the bid and ask, which are the most representative of the fair value, are used as appropriate to measure fair value. Fair value is best evidenced by an independent quoted market price for the same instrument in an active market. An active market is one where transactions are occurring with sufficient frequency and volume to provide quoted prices on an ongoing basis.
- Level 2 – Quoted prices for identical assets or liabilities in markets that are inactive or observable market quotes for similar instruments, or use of valuation techniques where all significant inputs are observable. Inactive markets may be characterized by a significant decline in the volume and level of observed trading activity or through large or erratic bid/offer spreads. In instances where traded markets do not exist or are not considered sufficiently active, we measure fair value using valuation models.
- Level 3 – Non-observable or indicative prices or use of valuation techniques where one or more significant inputs are non-observable.

For a significant portion of our financial instruments, quoted market prices are not available because of the lack of traded markets, and even where such markets do exist, they may not be considered sufficiently active to be used as a final determinant of fair value. When quoted market prices in active markets are not available, we would consider using valuation models. The valuation model and technique we select maximizes the use of observable market inputs to the extent possible and appropriate in order to estimate the price at which an orderly transaction would take place at the measurement date. In an inactive market, we consider all reasonably available information, including any available pricing for similar instruments, recent arm's-length market transactions, any relevant observable market inputs, indicative dealer or broker quotations, and our own internal model-based estimates.

Valuation adjustments are an integral component of our fair valuation process. We apply judgment in establishing valuation adjustments that take into account various factors that may have an impact on the valuation. Such factors include, but are not limited to, the bid-offer spread, illiquidity due to lack of market depth, parameter uncertainty and other market risk, model risk and credit risk.

Generally, the unit of account for a financial instrument is the individual instrument, and valuation adjustments are applied at an individual instrument level, consistent with that unit of account. In cases where we manage a group of financial assets and liabilities that consist of substantially similar and offsetting risk exposures, the fair value of the group of financial assets and liabilities are measured on the basis of the net open risks.

We apply judgment in determining the most appropriate inputs and the weighting we ascribe to each such input as well as in our selection of valuation methodologies. Regardless of the valuation technique we use, we incorporate assumptions that we believe market participants would make for credit, funding, and liquidity considerations. When the fair value of a financial instrument at inception is determined using a valuation technique that incorporates significant non-observable market inputs, no inception profit or loss (the difference between the determined fair value and the transaction price) is recognized at the time the asset or liability is first recorded. Any gains or losses at inception are deferred and recognized only in future periods over the term of the instruments or when market quotes or data become observable.

We have an ongoing process for evaluating and enhancing our valuation techniques and models. Where enhancements are made, they are applied prospectively, so that fair values reported in prior periods are not recalculated on the new basis. Valuation models used, including analytics for the construction of yield curves and volatility surfaces, are vetted and approved, consistent with our model risk policy.

To ensure that valuations are appropriate, we have established internal guidance on fair value measurement, which is reviewed periodically in recognition of the dynamic nature of markets and the constantly evolving pricing practices in the market. A number of policies and controls are put in place to ensure that the internal guidance on fair value measurement is being applied consistently and appropriately. Fair value of publicly issued securities and derivatives is independently validated at least once a month. Valuations are verified to external sources such as exchange quotes, broker quotes or other management-approved independent pricing sources. Key model inputs, such as yield curves and volatilities, are independently verified. The results from the independent price validation and any valuation adjustments are reviewed by the Independent Price Verification Committee on a monthly basis. This includes, but is not limited to, reviewing fair value adjustments and methodologies, independent price verification results, limits and valuation uncertainty. Fair value of privately issued securities is reviewed on a quarterly basis.

Due to the judgment used in applying a wide variety of acceptable valuation techniques and models, as well as the use of estimates inherent in this process, estimates of fair value for the same or similar assets may differ among financial institutions. The calculation of fair value is based on market conditions as at each consolidated balance sheet date, and may not be reflective of ultimate realizable value.

Methods and assumptions

Financial instruments with fair value equal to carrying value

For financial instruments that are not carried on the consolidated balance sheet at fair value and where we consider the carrying value to be a reasonable approximation of fair value due to their short-term nature and generally negligible credit risk, the fair values disclosed for these financial instruments are assumed to equal their carrying values. These financial instruments are: cash and non-interest-bearing deposits with banks; short-term interest-bearing deposits with banks; cash collateral on securities borrowed; securities purchased under resale agreements; customers' liability under acceptances; cash collateral on securities lent; obligations related to securities sold under repurchase agreements; acceptances; deposits with demand features; and certain other financial assets and liabilities.

Securities

The fair value of debt or equity securities and obligations related to securities sold short are based on quoted bid or ask market prices where available in an active market.

Securities for which quotes in an active market are not available are valued using all reasonably available market information as described below.

Fair value of government issued or guaranteed securities that are not traded in an active market are calculated by applying valuation techniques such as discounted cash flow models using implied yields derived from the prices of actively traded government securities and most recently observable spread differentials.

The fair value of corporate debt securities is determined using the most recently executed transaction prices, and where appropriate, adjusted to the price of these securities obtained from independent dealers, brokers, and third-party multi-contributor consensus pricing sources. When observable price quotations are not available, fair value is determined based on discounted cash flow models using observable discounting curves such as benchmark and government yield curves and spread differentials observed through independent dealers, brokers, and third-party multi-contributor consensus pricing sources.

Asset-backed securities (ABS) and mortgage-backed securities (MBS) not issued or guaranteed by a government are valued using discounted cash flow models making maximum use of market observable inputs, such as broker quotes on identical or similar securities and other pricing information obtained from third-party pricing sources adjusted for the characteristics and the performance of the underlying collateral. Other key inputs used include prepayment and liquidation rates, credit spreads, and discount rates commensurate with the risks involved. These assumptions factor information that is derived from actual transactions, underlying reference asset performance, external market research, and market indices, where appropriate.

Privately issued debt and equity securities, which include certain Community Reinvestment Act equity investments and Federal Home Loan Bank (FHLB) stock are valued using recent market transactions, where available. Otherwise, fair values are derived from valuation models using a market or income approach. These models consider various factors, including projected cash flows, earnings, revenue or other third-party evidence as available. The fair value of limited partnership investments is based upon net asset values published by third-party fund managers and is adjusted for more recent information, where available and appropriate. The carrying value of Community Reinvestment Act equity investments and FHLB stock approximates fair value.

Loans

The fair value of variable-rate loans and loans for which interest rates are repriced or reset frequently are assumed to be equal to their carrying value. The fair value for fixed-rate loans is estimated using a discounted cash flow calculation that uses market interest rates.

The ultimate fair value of loans disclosed is net of the associated allowance for credit losses. The fair value of loans is not adjusted for the value of any credit derivatives used to manage the credit risk associated with them. The fair value of these credit derivatives is disclosed separately.

Other assets and other liabilities

Other assets and other liabilities mainly comprise accrued interest receivable or payable, brokers' client accounts receivable or payable, and accounts receivable or payable.

The fair values of other assets and other liabilities are primarily assumed to be at cost or amortized cost as we consider the carrying value to be a reasonable approximation of fair value. Other assets also include investment in bank-owned life insurance carried at the cash surrender value, which is assumed to be a reasonable approximation of fair value.

Deposits

The fair values of floating-rate deposits and demand deposits are assumed to be equal to their amortized cost. The fair value of fixed-rate deposits is determined by discounting the contractual cash flows using either current market interest rates with similar remaining terms or rates estimated using internal models and broker quotes. The fair value of deposit notes issued to CIBC Capital Trust is determined by reference to the quoted market prices of CIBC Tier 1 Notes issued by CIBC Capital Trust. The fair value of deposit liabilities with embedded optionality includes the fair value of those options. The fair value of equity- and commodity-linked notes includes the fair value of embedded equity and commodity derivatives.

Certain FVO deposits are structured notes that have coupons or repayment terms linked to the performance of commodities, debt or equity securities. Fair value of these structured notes is estimated using internally vetted valuation models for the debt and embedded derivative portions of the notes by incorporating market observable prices of the referenced securities or comparable securities, and other inputs such as interest rate yield curves, market volatility levels, foreign exchange rates and changes in our own credit risk, where appropriate. Where observable prices or inputs are not available, management judgment is required to determine fair values by assessing other relevant sources of information such as historical data, proxy information from similar transactions, and through extrapolation and interpolation techniques. Appropriate market risk valuation adjustments for such inputs are assessed in all such instances.

The fair value of secured borrowings, which comprises liabilities issued by or as a result of activities associated with the securitization of residential mortgages, the Covered Bond Programme, and consolidated securitization vehicles, is based on identical or proxy market observable quoted bond prices or determined by discounting the contractual cash flows using maximum market observable inputs, such as market interest rates, or credit spreads implied by debt instruments of similar credit quality, as appropriate.

Subordinated indebtedness

The fair value of subordinated indebtedness is determined by reference to market prices for the same or similar debt instruments.

Derivative instruments

The fair value of exchange-traded derivatives such as options and futures is based on quoted market prices. OTC derivatives primarily consist of interest rate swaps, foreign exchange forwards, equity and commodity derivatives, interest rate and currency derivatives, and credit derivatives. For such instruments, where quoted market prices or third-party consensus pricing information are not available, valuation techniques are employed to estimate fair value on the basis of pricing models. Such vetted pricing models incorporate current market measures for interest rates, foreign exchange rates, equity and commodity prices and indices, credit spreads, corresponding market volatility levels, and other market-based pricing factors.

In order to reflect the observed market practice of pricing collateralized and uncollateralized derivatives, our valuation approach uses overnight indexed swap (OIS) curves as the discount rate for valuing collateralized derivatives and uses an estimated market cost of funds curve as the discount rate for valuing uncollateralized derivatives. The impact of valuing uncollateralized derivatives based on an estimated market cost of funds curve reduces the fair value of uncollateralized derivative assets incremental to the reduction in fair value for credit risk already reflected through the credit valuation adjustment (CVA). In contrast, the use of a market cost of funds curve reduces the fair value of uncollateralized derivative liabilities in a manner that generally includes adjustments for our own credit. As market practices continue to evolve in regard to derivative valuation, further adjustments may be required in the future.

In determining the fair value of complex and customized derivatives, such as equity, credit, and commodity derivatives written in reference to indices or baskets of reference, we consider all reasonably available information including any relevant observable market inputs, third-party consensus pricing inputs, indicative dealer and broker quotations, and our own internal model-based estimates, which are vetted and pre-approved in accordance with our model risk policy, and are regularly and periodically calibrated. The model calculates fair value based on inputs specific to the type of contract, which may include stock prices, correlation for multiple assets, interest rates, foreign exchange rates, yield curves, and volatility surfaces. Where observable prices or inputs are not available, management judgment is required to determine fair values by assessing other relevant sources of information such as historical data, proxy information from similar transactions, and through extrapolation and interpolation techniques. Appropriate parameter uncertainty and market risk valuation adjustments for such inputs and other model risk valuation adjustments are assessed in all such instances.

In addition to reflecting estimated market funding costs in our valuation of uncollateralized derivative receivables, we also consider whether a CVA is required to recognize the risk that any given derivative counterparty may not ultimately be able to fulfill its obligations. The CVA is driven off market-observed credit spreads or proxy credit spreads and our assessment of the net counterparty credit risk exposure. In assessing this exposure, we also take into account credit mitigants such as collateral, master netting arrangements, and settlements through clearing houses. As noted above, the fair value of uncollateralized derivative liabilities based on market cost of funding generally includes adjustments for our own credit.

Mortgage commitments

The fair value of FVO mortgage commitments is for fixed-rate residential mortgage commitments and is based on changes in market interest rates for the loans between the commitment and the consolidated balance sheet dates. The valuation model takes into account the expected probability that outstanding commitments will be exercised as well as the length of time the commitment is offered.

Fair value of financial instruments

		IFRS 9						
		Carrying value						
\$ millions, as at October 31		Amortized cost	Mandatorily measured at FVTPL	Designated at FVTPL	Fair value through OCI	Total	Fair value	Fair value over (under) carrying value
2018	Financial assets							
	Cash and deposits with banks	\$ 17,637	\$ 54	\$ –	\$ –	\$ 17,691	\$ 17,691	\$ –
	Securities	12,876	52,394	184	36,210	101,664	101,507	(157)
	Cash collateral on securities borrowed	5,488	–	–	–	5,488	5,488	–
	Securities purchased under resale agreements	40,128	3,322	–	–	43,450	43,450	–
	Loans							
	Residential mortgages	207,523	12	–	–	207,535	205,868	(1,667)
	Personal	42,577	–	–	–	42,577	42,559	(18)
	Credit card	12,255	–	–	–	12,255	12,255	–
	Business and government	92,605	16,424	–	–	109,029	108,917	(112)
	Derivative instruments	–	21,431	–	–	21,431	21,431	–
	Customers' liability under acceptances	10,265	–	–	–	10,265	10,265	–
	Other assets	10,230	–	–	–	10,230	10,230	–
	Financial liabilities							
	Deposits							
	Personal	\$ 163,113	\$ –	\$ 766	\$ –	\$ 163,879	\$ 163,642	\$ (237)
	Business and government	233,174	–	6,975	–	240,149	240,374	225
	Bank	14,380	–	–	–	14,380	14,380	–
	Secured borrowings	42,481	–	126	–	42,607	42,868	261
	Derivative instruments	–	20,973	–	–	20,973	20,973	–
	Acceptances	10,296	–	–	–	10,296	10,296	–
	Obligations related to securities sold short	–	13,782	–	–	13,782	13,782	–
	Cash collateral on securities lent	2,731	–	–	–	2,731	2,731	–
	Obligations related to securities sold under repurchase agreements	30,840	–	–	–	30,840	30,840	–
	Other liabilities	13,030	95	17	–	13,142	13,142	–
	Subordinated indebtedness	4,080	–	–	–	4,080	4,340	260

		IAS 39						
		Carrying value						
\$ millions, as at October 31		Amortized cost	Trading	Designated at fair value	Fair value through OCI	Total	Fair value	Fair value over (under) carrying value
2017	Financial assets							
	Cash and deposits with banks	\$ 13,735	\$ 417	\$ –	\$ –	\$ 14,152	\$ 14,152	\$ –
	Securities	2,435	50,679	148	40,157	93,419	93,406	(13)
	Cash collateral on securities borrowed	5,035	–	–	–	5,035	5,035	–
	Securities purchased under resale agreements	38,933	–	1,450	–	40,383	40,383	–
	Loans							
	Residential mortgages	207,056	12	–	–	207,068	206,135	(933)
	Personal	40,442	–	–	–	40,442	40,438	(4)
	Credit card	11,992	–	–	–	11,992	11,992	–
	Business and government	83,222	14,010	–	–	97,232	97,188	(44)
	Derivative instruments	–	24,342	–	–	24,342	24,342	–
	Customers' liability under acceptances	8,824	–	–	–	8,824	8,824	–
	Other assets	7,386	–	–	–	7,386	7,386	–
	Financial liabilities							
	Deposits							
	Personal	\$ 158,690	\$ –	\$ 637	\$ –	\$ 159,327	\$ 159,302	\$ (25)
	Business and government	220,050	–	5,572	–	225,622	225,955	333
	Bank	13,789	–	–	–	13,789	13,789	–
	Secured borrowings	40,634	–	334	–	40,968	41,391	423
	Derivative instruments	–	23,271	–	–	23,271	23,271	–
	Acceptances	8,828	–	–	–	8,828	8,828	–
	Obligations related to securities sold short	–	13,713	–	–	13,713	13,713	–
	Cash collateral on securities lent	2,024	–	–	–	2,024	2,024	–
	Obligations related to securities sold under repurchase agreements	27,971	–	–	–	27,971	27,971	–
	Other liabilities	9,782	126	9	–	9,917	9,917	–
	Subordinated indebtedness	3,209	–	–	–	3,209	3,541	332

Fair value of derivative instruments

\$ millions, as at October 31

		2018			2017		
		Positive	Negative	Net	Positive	Negative	Net
Held for trading							
Interest rate derivatives							
Over-the-counter	– Forward rate agreements	\$ 113	\$ 8	\$ 105	\$ 56	\$ 44	\$ 12
	– Swap contracts	4,603	5,901	(1,298)	6,968	7,220	(252)
	– Purchased options	92	–	92	153	–	153
	– Written options	–	100	(100)	–	168	(168)
		4,808	6,009	(1,201)	7,177	7,432	(255)
Exchange-traded	– Purchased options	1	–	1	–	–	–
	– Written options	–	–	–	–	153	(153)
		1	–	1	–	153	(153)
Total interest rate derivatives		4,809	6,009	(1,200)	7,177	7,585	(408)
Foreign exchange derivatives							
Over-the-counter	– Forward contracts	2,916	2,655	261	3,603	3,097	506
	– Swap contracts	4,825	4,979	(154)	6,028	6,012	16
	– Purchased options	240	–	240	217	–	217
	– Written options	–	233	(233)	–	243	(243)
		7,981	7,867	114	9,848	9,352	496
Total foreign exchange derivatives		7,981	7,867	114	9,848	9,352	496
Credit derivatives							
Over-the-counter	– Credit default swap contracts – protection purchased	115	13	102	130	31	99
	– Credit default swap contracts – protection sold	3	131	(128)	11	148	(137)
Total credit derivatives		118	144	(26)	141	179	(38)
Equity derivatives							
Over-the-counter		1,951	2,340	(389)	1,197	2,323	(1,126)
Exchange-traded		1,659	1,490	169	1,541	936	605
Total equity derivatives		3,610	3,830	(220)	2,738	3,259	(521)
Precious metal derivatives							
Over-the-counter		63	29	34	40	74	(34)
Exchange-traded		143	229	(86)	186	50	136
Total precious metal derivatives		206	258	(52)	226	124	102
Other commodity derivatives							
Over-the-counter		2,527	838	1,689	1,138	775	363
Exchange-traded		67	258	(191)	84	1	83
Total other commodity derivatives		2,594	1,096	1,498	1,222	776	446
Total held for trading		19,318	19,204	114	21,352	21,275	77
Held for ALM							
Interest rate derivatives							
Over-the-counter	– Forward rate agreements	–	1	(1)	1	–	1
	– Swap contracts	773	243	530	1,065	300	765
	– Purchased options	11	–	11	3	–	3
	– Written options	–	8	(8)	–	2	(2)
Total interest rate derivatives		784	252	532	1,069	302	767
Foreign exchange derivatives							
Over-the-counter	– Forward contracts	117	7	110	87	14	73
	– Swap contracts	1,205	1,461	(256)	1,707	1,631	76
	– Purchased options	–	–	–	1	–	1
	– Written options	–	–	–	–	1	(1)
Total foreign exchange derivatives		1,322	1,468	(146)	1,795	1,646	149
Credit derivatives							
Over-the-counter	– Credit default swap contracts – protection purchased	–	3	(3)	–	3	(3)
	– Credit default swap contracts – protection sold	–	–	–	–	–	–
Total credit derivatives		–	3	(3)	–	3	(3)
Equity derivatives							
Over-the-counter		7	46	(39)	126	44	82
Total equity derivatives		7	46	(39)	126	44	82
Other commodity derivatives							
Over-the-counter		–	–	–	–	1	(1)
Total other commodity derivatives		–	–	–	–	1	(1)
Total held for ALM		2,113	1,769	344	2,990	1,996	994
Total fair value		21,431	20,973	458	24,342	23,271	1,071
Less: effect of netting		(11,789)	(11,789)	–	(13,977)	(13,977)	–
		\$ 9,642	\$ 9,184	\$ 458	\$ 10,365	\$ 9,294	\$ 1,071

Assets and liabilities not carried on the consolidated balance sheet at fair value

The table below presents the fair values by level within the fair value hierarchy for those assets and liabilities in which fair value is not assumed to equal the carrying value:

\$ millions, as at October 31	Level 1		Level 2		Level 3		Total 2018	Total 2017
	Quoted market price		Valuation technique – observable market inputs		Valuation technique – non-observable market inputs			
	2018	2017	2018	2017	2018 ⁽¹⁾	2017		
Financial assets								
Amortized cost securities (2017: HTM securities)	\$ –	\$ –	\$ 12,283	\$ 2,422	\$ 436	\$ –	\$ 12,719	\$ 2,422
Loans	–	–	–	–	205,856	206,123	205,856	206,123
Residential mortgages	–	–	–	–	42,559	40,438	42,559	40,438
Personal	–	–	–	–	12,255	11,992	12,255	11,992
Credit card	–	–	–	–	92,493	83,178	92,493	83,178
Business and government	–	–	–	–	101	164	101	356
Investment in equity-accounted associates ⁽¹⁾	–	192	–	–	–	–	–	–
Financial liabilities								
Deposits	\$ –	\$ –	\$ 48,116	\$ 43,047	\$ 1,989	\$ 1,524	\$ 50,105	\$ 44,571
Personal	–	–	120,612	117,461	1,489	1,801	122,101	119,262
Business and government	–	–	10,003	8,568	–	–	10,003	8,568
Bank	–	–	38,612	37,995	4,130	3,062	42,742	41,057
Secured borrowings	–	–	4,340	3,541	–	–	4,340	3,541
Subordinated indebtedness	–	–	–	–	–	–	–	–

(1) See Note 25 for details of our equity-accounted associates.

Financial instruments carried on the consolidated balance sheet at fair value

The table below presents the fair values of financial instruments by level within the fair value hierarchy:

\$ millions, as at October 31	Level 1		Level 2		Level 3		Total 2018	Total 2017
	Quoted market price		Valuation technique – observable market inputs		Valuation technique – non-observable market inputs			
	2018	2017	2018	2017	2018	2017		
Financial assets								
Deposits with banks	\$ –	\$ –	\$ 54	\$ 417	\$ –	\$ –	\$ 54	\$ 417
Securities mandatorily measured and designated at FVTPL (2017: Trading and FVO securities)								
Government issued or guaranteed	4,264	2,403	16,328 ⁽¹⁾	13,103 ⁽¹⁾	–	–	20,592	15,506
Corporate equity	25,140	30,737	208	255	6	32	25,354	31,024
Corporate debt	–	–	3,675	2,256	26	–	3,701	2,256
Mortgage- and asset-backed	–	–	2,612 ⁽²⁾	1,944	319	97 ⁽²⁾	2,931	2,041
	29,404	33,140	22,823	17,558	351	129	52,578	50,827
Loans mandatorily measured at FVTPL (2017: Trading loans)								
Business and government	–	–	15,942	13,907	482	103	16,424	14,010
Residential mortgages	–	–	12	12	–	–	12	12
	–	–	15,954	13,919	482	103	16,436	14,022
Debt securities measured at FVOCI (2017: AFS debt securities)								
Government issued or guaranteed	2,844	4,299	24,763	21,015	–	–	27,607	25,314
Corporate debt	–	–	4,543	5,152	–	4	4,543	5,156
Mortgage- and asset-backed	–	–	3,498	7,544	–	1,674	3,498	9,218
	2,844	4,299	32,804	33,711	–	1,678	35,648	39,688
Equity securities designated at FVOCI (2017: AFS equity securities)								
Corporate equity	42	28	235	152	285	289	562	469
	42	28	235	152	285	289	562	469
Securities purchased under resale agreements measured at FVTPL (2017: FVO securities purchased under resale agreements)	–	–	3,322	1,450 ⁽³⁾	–	–	3,322	1,450
Derivative instruments								
Interest rate	–	–	5,593	8,218	–	28	5,593	8,246
Foreign exchange	–	–	9,303	11,643	–	–	9,303	11,643
Credit	–	–	3	11	115	130	118	141
Equity	1,727	1,541	1,783	1,285	107	38	3,617	2,864
Precious metal	–	–	206	226	–	–	206	226
Other commodity	143	270	2,451	952	–	–	2,594	1,222
	1,870	1,811	19,339	22,335	222	196	21,431	24,342
Total financial assets	\$ 34,160	\$ 39,278	\$ 94,531	\$ 89,542	\$ 1,340	\$ 2,395	\$ 130,031	\$ 131,215
Financial liabilities								
Deposits and other liabilities ⁽⁴⁾	\$ –	\$ –	\$ (7,556)	\$ (6,309)	\$ (423)	\$ (369)	\$ (7,979)	\$ (6,678)
Obligations related to securities sold short	(4,443)	(7,291)	(9,339)	(6,422)	–	–	(13,782)	(13,713)
	(4,443)	(7,291)	(16,895)	(12,731)	(423)	(369)	(21,761)	(20,391)
Derivative instruments								
Interest rate	–	–	(6,152)	(7,867)	(109)	(20)	(6,261)	(7,887)
Foreign exchange	–	–	(9,335)	(10,998)	–	–	(9,335)	(10,998)
Credit	–	–	(16)	(34)	(131)	(148)	(147)	(182)
Equity	(1,489)	(937)	(2,268)	(2,289)	(119)	(77)	(3,876)	(3,303)
Precious metal	–	–	(258)	(124)	–	–	(258)	(124)
Other commodity	(487)	(203)	(609)	(574)	–	–	(1,096)	(777)
	(1,976)	(1,140)	(18,638)	(21,886)	(359)	(245)	(20,973)	(23,271)
Total financial liabilities	\$ (6,419)	\$ (8,431)	\$ (35,533)	\$ (34,617)	\$ (782)	\$ (614)	\$ (42,734)	\$ (43,662)

(1) Includes \$52 million related to securities designated at FVTPL (2017: included \$54 million related to FVO securities).

(2) Includes \$132 million (2017: \$94 million) related to FVO asset-backed securities.

(3) Certain securities purchased under resale agreements were designated at fair value by electing the FVO under IAS 39. These securities are measured at FVTPL under IFRS 9.

(4) Comprises FVO deposits of \$7,517 million (2017: \$5,947 million), net bifurcated embedded derivative liabilities of \$350 million (2017: \$596 million), FVO other liabilities of \$17 million (2017: \$9 million), and other financial liabilities measured at fair value of \$95 million (2017: \$126 million).

Transfers between levels in the fair value hierarchy are deemed to have occurred at the beginning of the year in which the transfer occurred. Transfers between levels can occur as a result of additional or new information regarding valuation inputs and changes in their observability. During the year, we transferred \$211 million of securities mandatorily measured at FVTPL (2017: nil) and \$854 million of securities sold short (2017: \$405 million) from Level 1 to Level 2 due to reduced observability in the inputs used to value these securities. In addition, transfers between Level 2 and Level 3 were made during 2018 and 2017, primarily due to changes in the observability of certain market volatility inputs that were used in measuring the fair value of our embedded derivatives.

The following table presents the changes in fair value of financial assets and liabilities in Level 3. These instruments are measured at fair value utilizing non-observable market inputs. We often hedge positions with offsetting positions that may be classified in a different level. As a result, the gains and losses for assets and liabilities in the Level 3 category presented in the table below do not reflect the effect of offsetting gains and losses on the related hedging instruments that are classified in Level 1 and Level 2.

\$ millions, for the year ended October 31	IAS 39 Opening balance	Reclassification upon adoption of IFRS 9 ⁽²⁾	IFRS 9 Opening balance	Net gains (losses) included in income ⁽¹⁾		Net unrealized gains (losses) included in OCI ⁽⁵⁾	Transfer in to Level 3	Transfer out of Level 3	Purchases	Issuances	Sales	Settlements	Closing balance
				Realized ⁽³⁾	Unrealized ⁽³⁾⁽⁴⁾								
2018													
Securities mandatorily measured at FVTPL (2017: Trading securities)													
Corporate equity	\$ 32	\$ 10	\$ 42	\$ 2	\$ (3)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (3)	\$ (32)	\$ 6
Corporate debt	-	-	-	-	-	-	-	-	26	-	-	-	26
Mortgage- and asset-backed	3	707	710	3	9	-	12	-	95	-	(105)	(405)	319
Securities designated at FVTPL (2017: FVO securities)													
Asset-backed	94	(94)	-	-	-	-	-	-	-	-	-	-	-
Loans mandatorily measured at FVTPL (2017: Trading loans)													
Business and government	103	363	466	-	(5)	(5)	-	(2)	704	91	(171)	(596)	482
Debt securities measured at FVOCI (2017: AFS debt securities)													
Government issued or guaranteed	-	-	-	-	-	-	479	-	-	-	(479)	-	-
Corporate debt	4	-	4	(5)	1	-	-	-	26	-	(26)	-	-
Mortgage- and asset-backed	1,674	(1,674)	-	-	-	-	-	-	-	-	-	-	-
Equity securities designated at FVOCI (2017: AFS equity securities)													
Corporate equity	289	(10)	279	(3)	(2)	5	-	-	219	-	(213)	-	285
Derivative instruments													
Interest rate	28	-	28	-	(20)	-	-	-	-	-	-	(8)	-
Credit	130	-	130	(17)	2	-	-	-	-	-	-	-	115
Equity	38	-	38	-	(27)	-	12	(1)	109	-	-	(24)	107
Total assets	\$ 2,395	\$ (698)	\$ 1,697	\$ (20)	\$ (45)	\$ -	\$ 503	\$ (3)	\$ 1,179	\$ 91	\$ (997)	\$ (1,065)	\$ 1,340
Deposits and other liabilities⁽⁶⁾													
Total liabilities	\$ (369)	\$ -	\$ (369)	\$ -	\$ 117	\$ -	\$ (126)	\$ 81	\$ -	\$ (226)	\$ -	\$ 100	\$ (423)
Derivative instruments													
Interest rate	(20)	-	(20)	-	(79)	-	-	-	-	-	-	(10)	(109)
Credit	(148)	-	(148)	17	(2)	-	-	-	-	-	-	2	(131)
Equity	(77)	-	(77)	-	40	-	(71)	46	(147)	-	-	90	(119)
Total liabilities	\$ (614)	\$ -	\$ (614)	\$ 17	\$ 76	\$ -	\$ (197)	\$ 127	\$ -	\$ (373)	\$ -	\$ 182	\$ (782)
2017													
Trading securities													
Corporate equity	\$ 40	n/a	n/a	\$ -	\$ 4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	(12)	\$ 32
Mortgage- and asset-backed	496	n/a	n/a	2	(3)	-	-	-	-	-	-	(492)	3
FVO securities													
Asset-backed	94	n/a	n/a	3	8	-	-	-	-	-	-	(11)	94
Trading loans													
Business and government	-	n/a	n/a	-	1	-	-	-	13	101	(8)	(4)	103
AFS securities													
Corporate equity	344	n/a	n/a	71	(10)	(46)	-	-	40	27	(137)	-	289
Corporate debt	5	n/a	n/a	-	(1)	-	-	-	-	-	-	-	4
Mortgage- and asset-backed	1,947	n/a	n/a	5	-	(5)	-	-	653	-	-	(926)	1,674
Derivative instruments													
Interest rate	31	n/a	n/a	-	(2)	-	-	-	1	-	-	(2)	28
Credit	140	n/a	n/a	(11)	1	-	-	-	-	-	-	-	130
Equity	24	n/a	n/a	-	19	-	6	(19)	21	-	-	(13)	38
Total assets	\$ 3,121	n/a	n/a	\$ 70	\$ 17	\$ (51)	\$ 6	\$ (19)	\$ 728	\$ 128	\$ (145)	\$ (1,460)	\$ 2,395
Deposits and other liabilities⁽⁶⁾													
Total liabilities	\$ (780)	n/a	n/a	\$ 20	\$ (112)	\$ -	\$ (56)	\$ 101	\$ -	\$ (213)	\$ -	\$ 426	\$ (614)
Derivative instruments													
Interest rate	(35)	n/a	n/a	-	14	-	-	1	-	-	-	-	(20)
Credit	(197)	n/a	n/a	20	-	-	-	-	-	-	-	29	(148)
Equity	(42)	n/a	n/a	-	(25)	-	(41)	35	-	(22)	-	18	(77)

(1) Cumulative AOCI gains or losses related to equity securities designated at FVOCI are reclassified from AOCI to retained earnings at the time of disposal or derecognition.

(2) Certain reclassifications have been made upon adoption of IFRS 9. See Note 1 for more details about our transition to IFRS 9 on November 1, 2017.

(3) Includes foreign currency gains and losses related to debt securities measured at FVOCI.

(4) Comprises unrealized gains and losses relating to these assets and liabilities held at the end of the reporting year.

(5) Foreign exchange translation on loans mandatorily measured at FVTPL held by foreign operations is included in OCI.

(6) Includes FVO deposits of \$112 million (2017: \$40 million) and net bifurcated embedded derivative liabilities of \$311 million (2017: \$329 million).

n/a Not applicable.

Quantitative information about significant non-observable inputs

Valuation techniques using one or more non-observable inputs are used for a number of financial instruments. The following table discloses the valuation techniques and quantitative information about the significant non-observable inputs used in Level 3 financial instruments:

\$ millions, as at October 31	2018	Valuation techniques	Key non-observable inputs	Range of inputs	
				Low	High
Securities mandatorily measured at FVTPL					
Corporate equity	\$ 6	Adjusted net asset value ⁽¹⁾ Valuation multiple	Net asset value Earnings multiple	n/a 17.1	n/a 17.1
Corporate debt	26	Discounted cash flow	Discount rate	7.5 %	7.5 %
Mortgage- and asset-backed	319	Discounted cash flow Market proxy or direct broker quote	Credit spread Market proxy or direct broker quote	0.9 % – %	2.3 % 0.5 %
Equity securities designated at FVOCI					
Corporate equity					
Limited partnerships	210	Adjusted net asset value ⁽¹⁾ Valuation multiple	Net asset value Revenue multiple	n/a 1.5	n/a 6.9
Private companies	75	Discounted cash flow	Discount rate	18.9 %	18.9 %
Loans mandatorily measured at FVTPL					
Business and government	482	Discounted cash flow Discounted cash flow	Credit spread Discount rate	0.6 % 4.8 %	0.7 % 4.8 %
Derivative instruments					
Credit	115	Market proxy or direct broker quote	Market proxy or direct broker quote	– %	18.5 %
Equity	107	Option model	Market volatility Market correlation	13.4 % 33.3 %	13.4 % 88.4 %
Total assets	\$ 1,340				
Deposits and other liabilities	\$ (423)	Option model	Market volatility Market correlation	7.7 % (100.0) %	39.2 % 100.0 %
Derivative instruments					
Interest rate	(109)	Proprietary model ⁽²⁾ Option model	n/a Market volatility	n/a 12.0 %	n/a 26.8 %
Credit	(131)	Market proxy or direct broker quote	Market proxy or direct broker quote	– %	18.5 %
Equity	(119)	Option model	Market correlation	20.2 %	97.4 %
Total liabilities	\$ (782)				

(1) Adjusted net asset value is determined using reported net asset values obtained from the fund manager or general partner of the limited partnership and may be adjusted for current market levels where appropriate.

(2) Using valuation techniques which we consider to be non-observable.

n/a Not applicable.

Sensitivity of Level 3 financial assets and liabilities

The following section describes the significant non-observable inputs identified in the table above, the interrelationships between those inputs, where applicable and the change in fair value if changing one or more of the non-observable inputs within a reasonably possible range would impact the fair value significantly.

The fair value of our investments in private companies is derived from applying applicable valuation multiples to financial indicators such as revenue or earnings. Earnings multiples or revenue multiples represent the ratios of earnings or revenue to enterprise value and are often used as non-observable inputs in the fair value measurement of our investments in private companies. We apply professional judgment in our selection of the multiple from comparable listed companies, which is then further adjusted for company-specific factors. The fair value of private companies is sensitive to changes in the multiple we apply. An increase or a decrease in earnings multiples or revenue multiples generally results in an increase or a decrease respectively, in the fair value of our investments in private companies. By adjusting the multiple upward and downward within a reasonably possible range, the aggregate fair value of our investments in private companies would increase by \$11 million or decrease by \$8 million (2017: increase by \$10 million or decrease by \$8 million).

The fair value of our limited partnerships is determined based on the net asset value provided by the fund managers, adjusted as appropriate. The fair value of limited partnerships is sensitive to changes in the net asset value and by adjusting the net asset value within a reasonably possible range, the aggregate fair value of our limited partnerships would increase or decrease by \$23 million (2017: \$22 million).

While our standalone derivatives are recorded as derivative assets or derivative liabilities, our derivatives embedded in our structured note deposit liabilities or FVO deposit liabilities are recorded within deposits and other liabilities. The determination of the fair value of certain Level 3 embedded derivatives and certain standalone derivatives requires significant assumptions and judgment to be applied to both the inputs and the valuation techniques employed. These derivatives are sensitive to long-dated market volatility and correlation inputs, which we consider to be non-observable. Market volatility is a measure of the anticipated future variability of a market price and is an important input for pricing options, which are inherent in many of our Level 3 derivatives. A higher market volatility generally results in a higher option price, with all else held constant, due to the higher probability of obtaining a greater return from the option, and results in an increase in the fair value of our Level 3 derivatives. Correlation inputs are used to value those derivatives where the payout is dependent upon more than one market price. For example, the payout of an equity basket option is based upon the performance of a basket of stocks, and the interrelationships between the price movements of those stocks. A positive correlation implies that two inputs tend to change the fair value in the same direction, while a negative correlation implies that two inputs tend to change the fair value in the opposite direction. Changes in market correlation could result in an increase or a decrease in the fair value of our Level 3 derivatives and embedded derivatives. By adjusting the non-observable inputs by reasonably alternative amounts, the fair value of our net Level 3 standalone derivatives and embedded derivatives would increase by \$67 million or decrease by \$68 million (2017: increase by \$58 million or decrease by \$56 million).

FVO assets

FVO securities include certain debt securities (2017: debt securities and reverse repos) that were designated as FVO on the basis of being managed together with derivatives to eliminate or significantly reduce financial risks.

FVO liabilities

FVO deposits and other liabilities include:

- Certain business and government deposit liabilities and certain secured borrowings that are economically hedged with derivatives and other financial instruments, and certain financial liabilities that have one or more embedded derivatives that significantly modify the cash flows of the host liability but are not bifurcated from the host instrument; and
- Our mortgage commitments to retail clients to provide mortgages at fixed rates that are economically hedged with derivatives and other financial instruments.

The carrying value of our FVO securities represents our maximum exposure to credit risk related to these FVO assets. The change in fair value attributable to change in credit risk of these FVO assets during the year is insignificant (2017: insignificant). The fair value of a FVO liability reflects the credit risk relating to that liability. For those FVO liabilities for which we believe changes in our credit risk would impact the fair value from the note holders' perspective, the related fair value changes were recognized in OCI. Changes in fair value attributable to changes in our own credit are measured as the difference between: (i) the period-over-period change in the present value of the expected cash flows using a discount curve adjusted for our own credit; and (ii) the period-over-period change in the present value of the same expected cash flows using a discount curve based on the benchmark curve adjusted for our own credit as implied at inception of the FVO liability. The pre-tax impact of changes in CIBC's own credit risk on our FVO liabilities were losses of \$4 million for the year, and \$18 million, cumulatively. A net gain of \$37 million, net of hedges was realized for FVO assets and FVO liabilities, which is included in the consolidated statement of income under Gains (losses) from financial instruments measured/designated at FVTPL, net.

The estimated contractual amount payable at maturity of FVO deposits, which is based on the par value and the intrinsic value of the applicable embedded derivatives, is \$391 million higher (2017: \$253 million higher) than its fair value.

Note 3 | Significant transactions

Aeroplan developments

Air Canada announced on May 11, 2017, that it would not be renewing its exclusive Aeroplan partnership with Aimia Inc. (Aimia) upon the expiry of the contract on June 29, 2020. CIBC's Aeroplan clients would not be immediately impacted by this announcement, as Aeroplan members may continue to collect and redeem Aeroplan Miles for Air Canada travel until Aimia's contract with Air Canada expires. On August 21, 2018, Air Canada, The Toronto-Dominion Bank, CIBC and Visa Canada Corporation announced that an agreement in principle with Aimia had been reached for the purchase of the Aeroplan loyalty business for cash of \$450 million and the assumption of the Aeroplan Miles liability of approximately \$1.9 billion. Definitive agreements were signed on November 26, 2018, including credit card agreements securing CIBC's participation in Air Canada's new loyalty program for a period of 10 years, conditional upon completion of Air Canada's acquisition of the Aeroplan loyalty business. If finalized, this arrangement will allow our Aeroplan clients to transfer their Aeroplan Miles to Air Canada's new loyalty program, expected to launch in 2020. The agreements are subject to Aimia shareholder approval and certain other closing conditions, including receipt of applicable regulatory approvals. Upon closing, CIBC will contribute \$200 million plus applicable sales tax towards this transaction, which we expect to recognize as an expense in 2019. In addition, we will make a payment of \$92 million plus applicable sales tax to Air Canada, at closing, as a prepayment to be applied towards future monthly payments in respect of Aeroplan miles. We expect to recognize this prepayment as a charge to net income over the term of the new credit card agreement with Air Canada as loyalty points are purchased.

Acquisition of Wellington Financial

On January 5, 2018, CIBC acquired both the loan assets of Wellington Financial and its management team for a combination of cash, common shares, and exchangeable shares. The acquisition supports the launch of CIBC Innovation Banking, a full service business that delivers strategic advice and funding to North American technology and innovation clients at each stage of their business cycle, and further deepens CIBC's capabilities and complements CIBC Bank USA's existing commercial banking team. Goodwill of \$62 million was recognized as a result of the acquisition.

The exchangeable shares issued as part of the consideration for the acquisition are economically equivalent to CIBC common shares, and are subject to various vesting and performance conditions. A portion of the exchangeable shares are treated as equity-settled share-based compensation awards, and are amortized into income over the relevant vesting periods.

The results of the acquired business have been consolidated from the date of close and are included in our Canadian Commercial Banking and Wealth Management SBU.

Acquisition of PrivateBancorp, Inc.

On June 23, 2017, we completed the acquisition of PrivateBancorp, Inc. (PrivateBancorp) and its subsidiary, The PrivateBank and Trust Company (The PrivateBank, subsequently rebranded as CIBC Bank USA) for total consideration of US\$5.0 billion (C\$6.6 billion). This acquisition expands our U.S. presence which diversifies earnings and strengthens our platform for long-term growth. The acquisition also creates a platform for CIBC to deliver high-quality middle market commercial and private banking capabilities, which advances our client-focused strategy.

We acquired 100% of the outstanding share capital of PrivateBancorp for a final transaction value of US\$61.00 per PrivateBancorp share. During the first quarter of 2018, we finalized the purchase price allocation, and recognized an increase in goodwill of \$29 million primarily due to additional information arising from the settlement of the dispute with former PrivateBancorp shareholders who validly exercised their dissent and appraisal rights under Delaware law.

The following summarizes the total purchase consideration of \$6.6 billion as of the acquisition date, including the impact of final settlement of obligation to dissenting shareholders in the first quarter of 2018:

\$ millions, as at June 23, 2017

Issuance of CIBC common shares ⁽¹⁾	\$ 3,443
Cash ⁽²⁾	2,770
Estimated obligation payable to dissenting shareholders ⁽³⁾	327
Issuance of replacement equity-settled awards ⁽⁴⁾	72
Total purchase consideration estimated in 2017	\$ 6,612
Adjustment to purchase consideration in 2018 ⁽³⁾	\$ 29
Total final purchase consideration	\$ 6,641

(1) 32,137,402 CIBC common shares were issued at a price of US\$80.95 per share to satisfy the equity component of the merger consideration of 0.4176 of a CIBC common share per PrivateBancorp share.

(2) US\$2.1 billion in cash was transferred to satisfy the cash component of the merger consideration of US\$27.20 per PrivateBancorp share.

(3) Former PrivateBancorp shareholders who validly exercised their dissent and appraisal rights under Delaware law did not receive the merger consideration and instead filed petitions against PrivateBancorp seeking a payment equal to the "fair value" of their PrivateBancorp shares as determined by a Delaware court following an appraisal proceeding. In such a proceeding, a Delaware court may require a purchaser to pay to the dissenting shareholders an amount more or less than, or the same as, the merger consideration. As at June 23, 2017, CIBC estimated the fair value of the obligation payable to dissenting shareholders using the final transaction value of US\$61.00 per PrivateBancorp share. In November 2017, CIBC and the petitioners entered into an agreement to settle the dispute, subject to the court's entry of an order dismissing the consolidated petition. This matter was settled in November 2017 through a combination of \$162 million cash and \$194 million CIBC common shares, and resulted in an increase in goodwill of \$29 million.

(4) Equity-settled share-based awards issued to employees of PrivateBancorp and The PrivateBank consisted of 190,789 replacement restricted shares and 988,544 replacement stock options with a fair value of US\$54 million relating to the portion of these awards attributable to pre-acquisition service. The fair values of the restricted shares and the stock options were estimated based on the final transaction value of US\$61.00 per PrivateBancorp share.

The following summarizes the fair values of identifiable assets acquired and liabilities assumed at the acquisition date that were reflected in 2017, updated for the impact of final settlement of obligation to dissenting shareholders in the first quarter of 2018:

\$ millions, as at June 23, 2017

Fair values of assets acquired

Cash and non-interest-bearing deposits with banks	\$ 280
Interest-bearing deposits with banks	441
AFS and HTM securities	5,577
Loans ⁽¹⁾	20,642
Other assets	33
Intangible assets ⁽²⁾	370
Total fair value of identifiable assets acquired	27,343

Fair values of liabilities assumed

Deposits	24,059
Other liabilities	496
Total fair value of identifiable liabilities assumed	24,555
Fair value of identifiable net assets acquired	2,788
Goodwill	3,853
Total purchase consideration	\$ 6,641

(1) The fair value for loans reflects estimates of incurred and expected future credit losses at the acquisition date and interest rate premiums or discounts relative to prevailing market rates. The gross principal amount is \$20.9 billion.

(2) Intangible assets include core deposits, customer relationships, and software. Core deposit and customer relationship intangibles arising from the acquisition are amortized on a straight-line basis over estimated useful lives, which range from 3-10 years.

The goodwill recognized of \$3.8 billion primarily reflects the expected growth of our combined U.S. Commercial Banking and Wealth Management businesses, the ability to cross sell products between SBUs, and expected synergies from the integration of certain technology and operational platforms. Goodwill is not expected to be deductible for tax purposes.

All results of operations are included in our U.S. Commercial Banking and Wealth Management SBU. In 2017, our acquisition of PrivateBancorp increased our consolidated revenue and net income by \$448 million and \$96 million, respectively. If our acquisition of PrivateBancorp had occurred on November 1, 2016 it would have increased our 2017 consolidated revenue and net income by \$1,228 million and \$304 million, respectively. These amounts exclude transaction and integration costs, which are primarily recognized in non-interest expenses and included in Corporate and Other.

Acquisition of Geneva Advisors

On August 31, 2017, we completed the acquisition of Geneva Advisors, LLC (Geneva Advisors), an independent private wealth management firm, for total estimated consideration of US\$179 million (C\$224 million). This acquisition will expand CIBC's private wealth management client base and investment management capabilities in the U.S. The purchase price consisted of \$39 million of cash consideration and 1,204,344 CIBC common shares valued at \$126 million, plus estimated contingent consideration of \$59 million to be paid over the next three years subject to future performance conditions being met. Contingent consideration of up to US\$65 million may ultimately be payable dependent upon the level of achievement of future performance conditions.

The following summarizes the fair values of identifiable assets acquired and liabilities assumed at the acquisition date:

\$ millions, as at August 31, 2017

Cash	\$ 12
Other assets	2
Intangible assets ⁽¹⁾	102
Other liabilities	(12)
Fair value of identifiable net assets acquired	104
Goodwill ⁽²⁾	120
Total purchase consideration	\$ 224

(1) Intangible assets include customer relationships and contract-based intangibles. The customer relationship intangible asset arising from the acquisition is amortized on a straight-line basis over an estimated useful life of 7 years. Contract-based intangibles arising from the acquisition are amortized on a straight-line basis over estimated useful lives, which range from 5 to 9 years.

(2) Goodwill is expected to be deductible for tax purposes.

During the first quarter of 2018, we finalized the purchase price allocation. No adjustments were recorded as a result of the finalization.

All results of operations are included in our U.S. Commercial Banking and Wealth Management SBU. Transaction and integration costs are included in Corporate and Other.

Launch of Simplii Financial and wind-down of President's Choice Financial consumer banking offer

On August 16, 2017, we announced both the launch of Simplii Financial and the wind-down of our President's Choice Financial branded consumer banking offer with Loblaw Companies Limited (Loblaw). Under the terms of the wind-down agreement negotiated with Loblaw, CIBC is required to pay certain fees to Loblaw. In addition, as a result of the agreement, we incurred ancillary asset impairment and severance costs, as well as ongoing project-related costs. In aggregate, CIBC incurred fees and charges of approximately \$98 million (\$71 million after-tax) in the fourth quarter of 2017.

Lease of new premises

On April 12, 2017, we announced that we had entered into a lease agreement to become the anchor tenant at a new office complex in downtown Toronto. We have agreed to lease up to 1.75 million square feet of total office space in two buildings to be constructed at the site within the next six years. The aggregate future minimum lease commitments related to the lease, which begins in 2020, are \$2.3 billion.

Sale and lease back of certain retail properties

During the first quarter of 2017, we sold and leased back 89 retail properties located mainly in Ontario and British Columbia, and recognized a gain of \$299 million (\$245 million after-tax) on proceeds of \$390 million in our Canadian Personal and Small Business Banking SBU. The gain is included in Non-interest income – Other.

Note 4 | Securities

Securities

\$ millions, as at October 31

	2018	2017
	IFRS 9 Carrying amount	IAS 39 Carrying amount
AFS debt securities	\$ n/a	\$ 39,688
Debt securities measured at FVOCI	35,648	n/a
AFS equity securities	n/a	469
Equity securities designated at FVOCI	562	n/a
HTM securities	n/a	2,435
Securities measured at amortized cost ⁽¹⁾	12,876	n/a
Trading and FVO securities	n/a	50,827
Securities mandatorily measured and designated at FVTPL	52,578	n/a
	\$ 101,664	\$ 93,419

(1) There were no sales of securities measured at amortized cost during the year ended October 31, 2018.

n/a Not applicable.

\$ millions, as at October 31	Residual term to contractual maturity								IFRS 9		IAS 39			
	Within 1 year		1 to 5 years		5 to 10 years		Over 10 years		No specific maturity		2018 Total	2017 Total		
	Carrying value	Yield ⁽¹⁾	Carrying value	Yield ⁽¹⁾	Carrying value	Yield ⁽¹⁾	Carrying value	Yield ⁽¹⁾	Carrying value	Yield ⁽¹⁾	Carrying value	Yield ⁽¹⁾		
Debt securities measured at FVOCI (2017: AFS debt securities)														
Securities issued or guaranteed by:														
Canadian federal government	\$ 433	1.4 %	\$ 6,121	2.1 %	\$ 66	3.2 %	\$ –	– %	\$ –	– %	\$ 6,620	2.1 %	\$ 5,473	1.7 %
Other Canadian governments	1,193	1.6	5,121	2.8	2,911	3.0	24	3.2	–	–	9,249	2.7	5,266	2.0
U.S. Treasury and agencies	1,710	1.4	5,597	2.0	427	2.0	8	2.7	–	–	7,742	1.8	10,431	1.3
Other foreign governments	1,600	1.9	2,079	2.4	153	4.4	164	4.6	–	–	3,996	2.3	4,144	2.2
Mortgage-backed securities ⁽²⁾	167	1.2	650	2.5	359	2.4	2,254	2.7	–	–	3,430	2.5	6,984	1.6
Asset-backed securities	–	–	–	–	–	–	68	2.5	–	–	68	2.5	2,234	2.0
Corporate public debt	541	2.1	3,999	2.3	3	2.6	–	–	–	–	4,543	2.3	5,152	1.6
Corporate private debt	–	–	–	–	–	–	–	–	–	–	–	–	4	10.0
	5,644		23,567		3,919		2,518		–	–	35,648		39,688	
Equity securities designated at FVOCI (2017: AFS equity securities)														
Corporate public equity	–	–	–	–	–	–	–	–	43	n/m	43	n/m	32	n/m
Corporate private equity	–	–	–	–	–	–	–	–	519	n/m	519	n/m	437	n/m
	–	–	–	–	–	–	–	–	562		562		469	
Securities measured at amortized cost (2017: HTM Securities)														
Securities issued or guaranteed by:														
Canadian federal government	\$ –		\$ 147		\$ 33		\$ –		\$ –		\$ 180		\$ –	
Other Canadian governments	–		981		3,406		485		–		4,872		–	
U.S. Treasury and agencies	335		1,994		–		–		–		2,329		–	
Other foreign governments	158		159		–		376		–		693		1	
Mortgage-backed securities ⁽³⁾	174		1,029		940		1,584		–		3,727		2,426	
Asset-backed securities	–		130		214		–		–		344		–	
Corporate public debt	116		536		79		–		–		731		8	
	\$ 783		\$ 4,976		\$ 4,672		\$ 2,445		\$ –		\$ 12,876		\$ 2,435	
Securities mandatorily measured and designated at FVTPL (2017: Trading and FVO securities)														
Securities issued or guaranteed by:														
Canadian federal government	\$ 2,839		\$ 3,996		\$ 1,863		\$ 2,010		\$ –		\$ 10,708		\$ 6,505	
Other Canadian governments	1,070		996		1,068		4,921		–		8,055		7,033	
U.S. Treasury and agencies	2		503		119		281		–		905		1,705	
Other foreign governments	341		472		45		66		–		924		263	
Mortgage-backed securities ⁽⁴⁾	74		1,631		69		–		–		1,774		1,732	
Asset-backed securities	203		540		47		367		–		1,157		309	
Corporate public debt	1,206		1,970		381		144		–		3,701		2,256	
Corporate public equity	–		–		–		–		25,354		25,354		31,024	
	\$ 5,735		\$ 10,108		\$ 3,592		\$ 7,789		\$ 25,354		\$ 52,578		\$ 50,827	
Total securities ⁽⁵⁾	\$ 12,162		\$ 38,651		\$ 12,183		\$ 12,752		\$ 25,916		\$ 101,664		\$ 93,419	

- (1) Represents the weighted-average yield, which is determined by applying the weighted average of the yields of individual fixed income securities.
- (2) Includes securities backed by mortgages insured by the Canada Mortgage and Housing Corporation (CMHC), with amortized cost of \$517 million (2017: \$1,343 million) and fair value of \$518 million (2017: \$1,343 million); securities issued by Federal National Mortgage Association (Fannie Mae), with amortized cost of \$1,267 million (2017: \$1,895 million) and fair value of \$1,238 million (2017: \$1,891 million); securities issued by Federal Home Loan Mortgage Corporation (Freddie Mac), with amortized cost of \$689 million (2017: \$2,703 million) and fair value of \$1,003 million (2017: \$1,051 million) and fair value of \$1,001 million (2017: \$1,050 million).
- (3) Includes securities backed by mortgage insured by the Canada Mortgage and Housing Corporation (CMHC) with amortized cost of \$806 million (2017: nil) and fair value of \$807 million (2017: nil); securities issued by Fannie Mae, with amortized cost of \$1,275 million (2017: \$948 million) and fair value of \$1,226 million (2017: \$943 million); securities issued by Freddie Mac, with amortized cost of \$1,527 million (2017: \$1,337 million) and fair value of \$1,461 million (2017: \$1,329 million); and securities issued by Ginnie Mae, with amortized cost of \$119 million (2017: \$141 million) and fair value of \$113 million (2017: \$141 million).
- (4) Includes securities backed by mortgages insured by the CMHC of \$1,701 million (2017: \$1,690 million).
- (5) Includes securities denominated in U.S. dollars with carrying value of \$40.3 billion (2017: \$40.3 billion) and securities denominated in other foreign currencies with carrying value of \$1,799 million (2017: \$1,491 million).
- n/m Not meaningful.

Fair value of debt securities measured and equity securities designated at FVOCI

\$ millions, as at October 31	2018								2017
	IFRS 9, FVOCI securities				IAS 39, AFS securities				
	Amortized cost ⁽¹⁾	Gross unrealized gains	Gross unrealized losses	Fair value	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	
Securities issued or guaranteed by:									
Canadian federal government	\$ 6,608	\$ 15	\$ (3)	\$ 6,620	\$ 5,439	\$ 35	\$ (1)	\$ 5,473	
Other Canadian governments	9,220	31	(2)	9,249	5,236	30	–	5,266	
U.S. Treasury and agencies	7,824	7	(89)	7,742	10,459	6	(34)	10,431	
Other foreign governments	3,997	16	(17)	3,996	4,147	12	(15)	4,144	
Mortgage-backed securities	3,476	5	(51)	3,430	6,992	5	(13)	6,984	
Asset-backed securities	68	–	–	68	2,236	1	(3)	2,234	
Corporate public debt	4,567	2	(26)	4,543	5,163	8	(19)	5,152	
Corporate private debt	–	–	–	–	5	–	(1)	4	
Corporate public equity ⁽²⁾	34	14	(5)	43	13	19	–	32	
Corporate private equity	434	100	(15)	519	351	86	–	437	
	\$ 36,228	\$ 190	\$ (208)	\$ 36,210	\$ 40,041	\$ 202	\$ (86)	\$ 40,157	

- (1) Net of allowance for credit losses for debt securities measured at FVOCI of \$23 million (2017: nil).
- (2) Includes restricted stock.

Fair value of equity securities designated at FVOCI that were disposed of during the year was \$35 million. Realized cumulative after-tax gains of \$38 million for the year resulting from dispositions of equity securities designated at FVOCI and return on capital distributions from limited partnerships designated at FVOCI were reclassified from AOCI to retained earnings.

Dividend income recognized for the year ended October 31, 2018 on equity securities designated at FVOCI that were still held as at October 31, 2018 was \$5 million. Dividend income recognized on equity securities designated at FVOCI that were disposed of was nil for the year.

The table below presents profit or loss recognized on FVOCI securities (2017 and 2016: AFS securities):

\$ millions, for the year ended October 31	2018	2017	2016
Realized gains	\$ 56	\$ 178	\$ 108
Realized losses	(13)	(25)	(8)
Provision for credit losses on debt securities	(78)	n/a	n/a
Impairment write-downs Equity securities	n/a	(10)	(27)
	\$ (35)	\$ 143	\$ 73

n/a Not applicable.

Allowance for credit losses

The following table provides a reconciliation of the opening balance to the closing balance of the ECL allowance under IFRS 9 for debt securities measured at FVOCI:

\$ millions, as at or for the year ended October 31	Stage 1	Stage 2	Stage 3	In accordance with IFRS 9
	Collective provision 12-month ECL performing	Collective provision lifetime ECL performing	Collective and individual provision lifetime ECL credit-impaired	Total
2018 Debt securities measured at FVOCI				
Balance at beginning of year	\$ 14	\$ 35	\$ –	\$ 49
Provision for (reversal of) credit losses ⁽¹⁾	1	(32)	109	78
Write-offs	–	–	(5)	(5)
Other	–	–	(99) ⁽²⁾	(99)
Balance at end of year	\$ 15	\$ 3	\$ 5	\$ 23

(1) Included in the gains (losses) from financial instruments measured at FVOCI and amortized cost, net on our consolidated statement of income.

(2) Includes ECL of \$99 million relating to Barbados debt securities that were derecognized in the fourth quarter of 2018 as a result of a debt restructuring agreement completed with the Government of Barbados.

Barbados debt restructuring

As a result of a comprehensive debt restructuring agreement completed with the Government of Barbados in the fourth quarter of 2018, which impacts Barbados dollar-denominated debt instruments and excludes US dollar-denominated debt, we derecognized debt securities measured at FVOCI with a par value of \$467 million and expected credit losses of \$99 million, and derecognized loans measured at amortized cost with a par value of \$116 million and expected credit losses of \$48 million. In exchange for the securities and loans that were derecognized, we recognized longer-dated securities with a par value of \$522 million as originated credit-impaired amortized cost securities at a carrying value equal to the estimated fair value of \$375 million with no initial allowance for expected credit losses as risk of future losses was reflected in the acquisition date discount, and recognized shorter-dated securities with a par value of \$61 million as stage 1 amortized cost securities with expected credit losses of \$1 million.

HTM securities

As at October 31, 2017, we had HTM securities carried at amortized cost with a carrying value of \$2,435 million and a fair value of \$2,422 million. HTM securities measured at amortized cost are required to be assessed for impairment on a periodic basis. Impairment exists when, in management's opinion, there is no longer reasonable assurance that the full amount of principal and interest can be collected. As at October 31, 2017, we determined that these HTM securities were not impaired. During 2017, no HTM securities were sold.

Note 5 | Loans⁽¹⁾⁽²⁾

\$ millions, as at October 31	In accordance with IFRS 9					In accordance with IAS 39				
	Gross amount	Stage 3 allowance	Stages 1 and 2 allowance	Total allowance	Net total	Gross amount	Individual allowance	Collective allowance	Total allowance	Net total
Residential mortgages ⁽³⁾	\$ 207,749	\$ 143	\$ 71	\$ 214	\$ 207,535	\$ 207,271	\$ 2	\$ 201	\$ 203	\$ 207,068
Personal ⁽⁴⁾	43,058	109	372	481	42,577	40,937	7	488	495	40,442
Credit card	12,673	–	418	418	12,255	12,378	–	386	386	11,992
Business and government ⁽³⁾	109,555	230	296	526	109,029	97,766	183	351	534	97,232
	\$ 373,035	\$ 482	\$ 1,157	\$ 1,639	\$ 371,396	\$ 358,352	\$ 192	\$ 1,426	\$ 1,618	\$ 356,734

(1) Loans are net of unearned income of \$421 million (2017: \$376 million).

(2) Includes gross loans of \$61.0 billion (2017: \$53.1 billion) denominated in U.S. dollars and \$4.8 billion (2017: \$4.8 billion) denominated in other foreign currencies.

(3) Includes \$12 million of residential mortgages (2017: \$12 million) and \$16,424 million of business and government loans (2017: \$14,010 million) that are measured at FVTPL (2017: Trading loans).

(4) Includes \$42 million (2017: \$47 million) related to loans provided to certain individuals while employed by CIBC to finance a portion of their participation in funds which make private equity investments on a side-by-side basis with CIBC and its affiliates. These loans are secured by the borrowers' interest in the funds. Of the total amount outstanding, \$41 million (2017: \$47 million) relates to individuals who are no longer employed by CIBC.

Allowance for credit losses⁽¹⁾

The following table provides a reconciliation of the opening balance to the closing balance of the ECL allowance under IFRS 9:

\$ millions, as at or for the year ended October 31

				2018
	Stage 1	Stage 2	Stage 3	In accordance with IFRS 9
	Collective provision 12-month ECL performing	Collective provision lifetime ECL performing	Collective and individual provision lifetime ECL credit-impaired ⁽²⁾	Total
Residential mortgages				
Balance at beginning of year	\$ 28	\$ 43	\$ 151	\$ 222
Originations net of repayments and other derecognitions	7	(6)	(13)	(12)
Changes in model	(2)	1	22	21
Net remeasurement ⁽³⁾	(25)	13	60	48
Transfers ⁽³⁾				
– to 12-month ECL	20	(16)	(4)	–
– to lifetime ECL performing	(1)	9	(8)	–
– to lifetime ECL credit-impaired	–	(2)	2	–
Provision for (reversal of) credit losses ⁽⁴⁾	(1)	(1)	59	57
Write-offs ⁽⁵⁾	–	–	(54)	(54)
Recoveries	–	–	–	–
Interest income on impaired loans	–	–	(10)	(10)
Foreign exchange and other	–	2	(3)	(1)
Balance at end of year	\$ 27	\$ 44	\$ 143	\$ 214
Personal				
Balance at beginning of year	\$ 164	\$ 202	\$ 110	\$ 476
Originations net of repayments and other derecognitions	34	(22)	(5)	7
Changes in model	(2)	–	–	(2)
Net remeasurement ⁽³⁾	(116)	148	299	331
Transfers ⁽³⁾				
– to 12-month ECL	151	(148)	(3)	–
– to lifetime ECL performing	(40)	49	(9)	–
– to lifetime ECL credit-impaired	–	(31)	31	–
Provision for (reversal of) credit losses ⁽⁴⁾	27	(4)	313	336
Write-offs ⁽⁵⁾	–	–	(368)	(368)
Recoveries	–	–	58	58
Interest income on impaired loans	–	–	(3)	(3)
Foreign exchange and other	(1)	1	(1)	(1)
Balance at end of year	\$ 190	\$ 199	\$ 109	\$ 498
Credit card				
Balance at beginning of year	\$ 101	\$ 413	\$ –	\$ 514
Originations net of repayments and other derecognitions	–	(24)	–	(24)
Changes in model	–	2	–	2
Net remeasurement ⁽³⁾	(143)	370	145	372
Transfers ⁽³⁾				
– to 12-month ECL	179	(179)	–	–
– to lifetime ECL performing	(35)	35	–	–
– to lifetime ECL credit-impaired	–	(247)	247	–
Provision for (reversal of) credit losses ⁽⁴⁾	1	(43)	392	350
Write-offs ⁽⁵⁾	–	–	(512)	(512)
Recoveries	–	–	120	120
Interest income on impaired loans	–	–	–	–
Foreign exchange and other	–	–	–	–
Balance at end of year	\$ 102	\$ 370	\$ –	\$ 472
Business and government				
Balance at beginning of year	\$ 234	\$ 150	\$ 204	\$ 588
Originations net of repayments and other derecognitions	19	(10)	(15)	(6)
Changes in model	(11)	(7)	1	(17)
Net remeasurement ⁽³⁾	(109)	72	187	150
Transfers ⁽³⁾				
– to 12-month ECL	66	(60)	(6)	–
– to lifetime ECL performing	(21)	25	(4)	–
– to lifetime ECL credit-impaired	(1)	(24)	25	–
Provision for (reversal of) credit losses ⁽⁴⁾	(57)	(4)	188	127
Write-offs ⁽⁵⁾	–	–	(116)	(116)
Recoveries	–	–	12	12
Interest income on impaired loans	–	–	(10)	(10)
Foreign exchange and other	3	1	(48) ⁽⁶⁾	(44)
Balance at end of year	\$ 180	\$ 147	\$ 230	\$ 557
Total ECL allowance⁽¹⁾	\$ 499	\$ 760	\$ 482	\$ 1,741
Comprises:				
Loans	\$ 450	\$ 707	\$ 482	\$ 1,639
Undrawn credit facilities and other off-balance sheet exposures ⁽⁷⁾	49	53	–	102

(1) See Note 4 for the ECL allowance on debt securities measured at FVOCI. The ECL allowances for other financial assets classified at amortized cost were immaterial as at October 31, 2018 and were excluded from the table above. Other financial assets classified at amortized cost are presented on our consolidated balance sheet net of ECL allowances.

(2) Includes the ECL allowance for purchased credit-impaired loans from the acquisition of The PrivateBank.

(3) Transfers represent stage movements of prior year ECL allowances to the current year stage classification. Net remeasurement represents the current year change of ECL allowances for transfers, net write-offs, changes in forecasts of forward-looking information, parameter updates, and partial repayments in the year.

(4) Provision for (reversal of) credit losses for loans and undrawn credit facilities and other off-balance sheet exposures is presented as provision for (reversal of) credit losses on our consolidated statement of income.

(5) We generally continue to pursue collection on the amounts that were written off. The degree of collection efforts varies from one jurisdiction to another, depending on the local regulations and original agreements with customers.

(6) Includes ECL of \$48 million relating to Barbados loans that were derecognized in the fourth quarter of 2018 as a result of a debt restructuring agreement completed with the Government of Barbados.

(7) Included in other liabilities on our consolidated balance sheet.

Allowance for credit losses

The following table provides a reconciliation of the opening balance to the closing balance of allowance for credit losses under IAS 39:

\$ millions, as at or for the year ended October 31

	Individual allowance	Collective allowance	2017
			In accordance with IAS 39 Total
Residential mortgages			
Balance at beginning of year	\$ 1	\$ 220	\$ 221
Provision for (reversal of) credit losses	–	39	39
Write-offs	–	(38)	(38)
Recoveries	–	–	–
Interest income on impaired loans	–	(8)	(8)
Foreign exchange and other	1	(12)	(11)
Balance at end of year	\$ 2	\$ 201	\$ 203
Personal			
Balance at beginning of year	\$ 8	\$ 489	\$ 497
Provision for (reversal of) credit losses	–	308	308
Write-offs	–	(359)	(359)
Recoveries	–	54	54
Interest income on impaired loans	–	–	–
Foreign exchange and other	(1)	(4)	(5)
Balance at end of year	\$ 7	\$ 488	\$ 495
Credit card			
Balance at beginning of year	\$ –	\$ 386	\$ 386
Provision for (reversal of) credit losses	–	410	410
Write-offs	–	(529)	(529)
Recoveries	–	119	119
Interest income on impaired loans	–	–	–
Foreign exchange and other	–	–	–
Balance at end of year	\$ –	\$ 386	\$ 386
Business and government			
Balance at beginning of year	\$ 249	\$ 460	\$ 709
Provision for (reversal of) credit losses	61	11	72
Write-offs	(107)	(24)	(131)
Recoveries	15	5	20
Interest income on impaired loans	(18)	–	(18)
Foreign exchange and other	(17)	18	1
Balance at end of year	\$ 183	\$ 470	\$ 653
Total allowance for credit losses	\$ 192	\$ 1,545	\$ 1,737
Comprises:			
Loans	\$ 192	\$ 1,426	\$ 1,618
Undrawn credit facilities and other off-balance sheet exposures ⁽¹⁾	–	119	119

(1) Included in other liabilities on our consolidated balance sheet.

Inputs, assumptions and model techniques

Our ECL allowances are estimated using complex models that incorporate inputs, assumptions and model techniques that involve a high degree of management judgment. In particular, the following ECL elements are subject to a high level of judgment that can have a significant impact on the level of ECL allowances provided:

- Determining when a significant increase in credit risk of a loan has occurred;
 - Measuring both 12-month and lifetime credit losses; and
 - Forecasting forward-looking information for multiple scenarios and determining the probability weighting of the scenarios.
- In addition, the interrelationship between these elements is also subject to a high degree of judgment which can also have a significant impact on the level of ECL recognized.

Determining when a significant increase in credit risk has occurred

The determination of whether a loan has experienced a significant increase in credit risk has a significant impact on the level of ECL allowance as loans that are in stage 1 are measured at 12-month ECL, while loans in stage 2 are measured at lifetime ECL. Migration of loans between stage 1 and stage 2 can cause significant volatility in the amount of the recognized ECL allowances and the provision for credit losses in a particular period.

For the majority of our retail loan portfolios, we determine a significant increase in credit risk based on relative changes in the loan's lifetime PD since its initial recognition. The PDs used for this purpose are the expected value of our upside, downside and base case lifetime PDs. Significant judgment is involved in determining the upside, downside and base case lifetime PDs through the incorporation of forward-looking information into long run PDs, in determining the probability weightings of the scenarios, and in determining the relative change in PDs that are indicative of a significant increase in credit risk for our various retail products. Increases in the expected PDs or decreases in the thresholds for changes in PDs that are indicative of a significant increase in credit risk can cause significant migration of loans from stage 1 to stage 2, which in turn can cause a significant increase in the amount of ECL allowances recognized. In contrast, decreases in the expected PDs or increases in the thresholds for changes in PDs that are indicative of a significant increase in credit risk can cause significant migration of loans from stage 2 to stage 1.

For the majority of our business and government loan portfolios, we determine a significant increase in credit risk based on relative changes in internal risk ratings since initial recognition. Significant judgment is involved in the determination of the internal risk ratings. Deterioration or improvement in the risk ratings or adjustments to the risk rating downgrade thresholds used to determine a significant increase in credit risk can cause significant migration of loans and securities between stage 1 and stage 2, which in turn can have a significant impact on the amount of ECL allowances recognized.

While potentially significant to the level of ECL allowances recognized, the thresholds for changes in PDs that are indicative of a significant increase in credit risk for our retail portfolios and the risk rating downgrade thresholds used to determine a significant increase in credit risk for our business and government loan portfolios are not expected to change frequently.

All loans on which repayment of principal or payment of interest is contractually 30 days in arrears and all business and government loans that have migrated to the watch list are automatically migrated to stage 2 from stage 1.

As at October 31, 2018, if the ECL for the stage 2 performing loans were measured using stage 1 ECL as opposed to lifetime ECL, the expected credit losses would be \$273 million lower than the total recognized IFRS 9 ECL on performing loans.

Measuring both 12-month and lifetime expected credit losses

Our ECL models leverage the PD, LGD, and EAD parameters, as well as the portfolio segmentation used to calculate Basel expected loss regulatory adjustments for the portion of our retail and business and government portfolios under the advanced internal ratings-based (AIRB) approach. Adjustments are made to the Basel parameters to meet IFRS 9 requirements, including the conversion of through-the-cycle and downturn parameters used in the Basel regulatory calculations to point-in-time parameters used under IFRS 9 that considers forward-looking information. For standardized business and government portfolios, available long-run PDs, LGDs and EADs are also converted to point-in-time parameters through the incorporation of forward-looking information for the purpose of measuring ECL under IFRS 9.

Significant judgment is involved in determining which forward-looking information variables are relevant for particular portfolios and in determining the extent by which through-the-cycle parameters should be adjusted for forward-looking information to determine point-in-time parameters. While changes in the set of forward-looking information variables used to convert through-the cycle PDs, LGDs and EADs into point-in-time parameters can either increase or decrease ECL allowances in a particular period, changes to the mapping of forward-looking information variables to particular portfolios are expected to be infrequent. However, changes in the particular forward-looking information parameters used to quantify point-in-time parameters will be frequent as our forecasts are updated on a quarterly basis. Increases in the level of pessimism in the forward-looking information variables will cause increases in expected credit losses, while increases in the level of optimism in the forward-looking information variables will cause decreases in expected credit losses. These increases and decreases could be significant in any particular period and will start to occur in the period where our outlook of the future changes.

With respect to the lifetime of a financial instrument, the maximum period considered when measuring ECL is the maximum contractual period over which we are exposed to credit risk. For revolving facilities, such as credit cards, the lifetime of a credit card account is the expected behavioural life. Significant judgment is involved in the estimate of the expected behavioural life. Increases in the expected behavioural life will increase the amount of ECL allowances, in particular for revolving loans in stage 2.

Forecasting forward-looking information for multiple scenarios and determining the probability weighting of the scenarios

As indicated above, forward-looking information is incorporated into both our assessment of whether the financial asset has experienced a significant increase in credit risk since its initial recognition and in our estimate of ECL. From analysis of historical data, our risk management function has identified and reflected in our ECL allowance those relevant forward-looking information variables that contribute to credit risk and losses within our retail and business and government loan portfolios. Within our retail loan portfolio, key forward-looking information variables include unemployment rates, housing prices and GDP growth. In many cases these variables are forecast at the provincial level. Housing prices are also forecasted at the municipal level in some cases. Within our business and government loan portfolio, key drivers that impact the credit performance of the entire portfolio include S&P 500 growth rates, business credit growth rates, unemployment rates and credit spreads, while forward-looking information variables such as commodity prices are significant for certain portfolios.

Our forecasting process leverages the process used prior to the adoption of IFRS 9. For the majority of our loan portfolios, our forecast of forward-looking information variables is established from a "base case" or most likely scenario that is used internally by management for planning and forecasting purposes. For most of the forward-looking information variables related to our Canadian businesses, we have forecast scenarios by province. In forming the "base case" scenario, we consider the forecasts of monetary authorities such as the Organisation for Economic Co-operation and Development (OECD), the International Monetary Fund (IMF), and the Bank of Canada, as well as private sector economists. We then derive reasonably possible "upside case" and "downside case" scenarios using external forecasts that are above and below our "base case" and the application of management judgment. A probability weighting is assigned to our "base case", "upside case" and "downside case" scenarios based on management judgment.

The following table provides the base case and downside case scenario forecasts for select forward-looking information variables used to estimate our October 31, 2018 ECL. The base case amounts shown represent the average value of the forecasts over the respective projection horizons. The upside case and downside case amounts shown represent the average value of the forecasts over the entire projection horizon.

	Base case		Upside case		Downside case	
	Average value over the next 12 months	Average value over the remaining forecast period	Average value over the forecast period	Average value over the forecast period	Average value over the forecast period	Average value over the forecast period
\$ millions, as at October 31, 2018						
Canadian GDP year-over-year growth ⁽¹⁾	1.9 %	1.4 %	2.3 %	2.3 %	1.2 %	1.2 %
Canadian unemployment rate ⁽¹⁾	5.8 %	6.0 %	5.3 %	5.3 %	6.4 %	6.4 %
Canadian Housing Price Index growth ⁽¹⁾	2.2 %	2.3 %	6.4 %	6.4 %	(1.2)%	(1.2)%
S&P 500 Index growth rate	4.6 %	(1.4)%	11.3 %	11.3 %	(10.8)%	(10.8)%
West Texas Intermediate Oil Price (\$US)	\$ 67	\$ 65	\$ 78	\$ 78	\$ 52	\$ 52

(1) Federal level forward-looking forecasts are presented in the table above, which represent the aggregation of the provincial level forecasts used to estimate our ECL. Housing Price Index growth rates are also forecasted at the municipal level in some cases. As a result, the forecasts for individual provinces or municipalities reflected in our ECLs will differ from the federal forecasts presented above.

The forecasting process is overseen by a governance committee consisting of internal stakeholders from across our bank including Risk Management, Economics, Finance and the impacted SBUs and involves a significant amount of judgment both in determining the forward-looking information forecasts for our various scenarios and in determining the probability weighting assigned to the scenarios. In general, a worsening of our outlook on forecasted forward-looking information for each scenario or an increase in the probability of the "downside case" scenario occurring will both increase the number of loans migrating from stage 1 to stage 2 and increase the estimated ECL allowance. In contrast, an improvement in our outlook on forecasted forward-looking information or an increase in the probability of the "upside case" scenario occurring will have the opposite impact. It is not possible to meaningfully isolate the impact of changes in the various forward-looking information variables for a particular scenario because of both the interrelationship between the variables and the interrelationship between the level of pessimism inherent in a particular scenario and its probability of occurring.

As indicated above, forecasting forward-looking information for multiple scenarios and determining the probability weighting of the scenarios involves a high degree of management judgment. If we were to only use our downside case scenario for the measurement of ECL for our performing loans, our ECL allowance would be \$241 million higher than the recognized ECL as at October 31, 2018. This sensitivity is isolated to the measurement of ECL and therefore

did not consider the additional migration of exposures to stage 2 from the additional significant increase in credit risk that would have resulted in a 100% downside scenario.

Management overlays to ECL allowance estimates are adjustments which we use in circumstances where we judge that our existing inputs, assumptions and model techniques do not capture all relevant risk factors. The emergence of new macroeconomic, microeconomic or political events, along with expected changes to parameters, models or data that are not incorporated in our current parameters, internal risk rating migrations, or forward-looking information are examples of such circumstances. The use of management overlays requires the application of significant judgment that may impact the amount of ECL allowances recognized.

The following tables provide the gross carrying amount of loans, and the contractual amounts of undrawn credit facilities and other off-balance sheet exposures based on the application of our 12-month point in time PDs under IFRS 9 to our risk management PD bands for retail exposures, and based on our internal risk ratings for business and government exposures. Refer to "Credit risk" section of the MD&A for details on the CIBC risk categories.

Loans⁽¹⁾

\$ millions, as at October 31

	Stage 1	Stage 2	Stage 3 ⁽²⁾⁽³⁾⁽⁴⁾	2018 Total
Residential mortgages				
– Exceptionally low	\$ 141,556	\$ –	\$ –	\$ 141,556
– Very low	40,225	–	–	40,225
– Low	15,321	798	–	16,119
– Medium	859	4,905	–	5,764
– High	–	996	–	996
– Default	–	–	510	510
– Not rated	2,163	249	167	2,579
Gross residential mortgages ⁽⁵⁾⁽⁶⁾	200,124	6,948	677	207,749
ECL allowance	27	44	143	214
Net residential mortgages	200,097	6,904	534	207,535
Personal				
– Exceptionally low	23,808	–	–	23,808
– Very low	3,813	1,374	–	5,187
– Low	5,954	702	–	6,656
– Medium	4,428	1,151	–	5,579
– High	245	691	–	936
– Default	–	–	142	142
– Not rated	677	33	40	750
Gross personal ⁽⁶⁾	38,925	3,951	182	43,058
ECL allowance	176	196	109	481
Net personal	38,749	3,755	73	42,577
Credit card				
– Exceptionally low	3,405	–	–	3,405
– Very low	1,747	50	–	1,797
– Low	3,809	710	–	4,519
– Medium	1,011	1,241	–	2,252
– High	10	528	–	538
– Default	–	–	–	–
– Not rated	162	–	–	162
Gross credit card	10,144	2,529	–	12,673
ECL allowance	88	330	–	418
Net credit card	10,056	2,199	–	12,255
Business and government				
– Investment grade	42,532	221	–	42,753
– Non-investment grade	68,798	3,818	–	72,616
– Watchlist	145	1,120	–	1,265
– Default	–	–	504	504
– Not rated	2,397	168	117	2,682
Gross business and government ⁽⁵⁾⁽⁷⁾	113,872	5,327	621	119,820
ECL allowance	159	137	230	526
Net business and government	113,713	5,190	391	119,294
Total net amount of loans	\$ 362,615	\$ 18,048	\$ 998	\$ 381,661

(1) Other financial assets classified at amortized cost were excluded from the table above as their ECL allowances were immaterial as at October 31, 2018. In addition, the table excludes debt securities measured at FVOCI, for which ECL allowances of \$23 million were recognized in AOCI.

(2) Includes purchased credit-impaired loans from the acquisition of The PrivateBank.

(3) Excludes foreclosed assets of \$14 million which were included in Other assets on our consolidated balance sheet.

(4) As at October 31, 2018, 89% of stage 3 impaired loans were either fully or partially collateralized.

(5) Includes \$12 million of residential mortgages and \$16,424 million of business and government loans that are measured at FVTPL.

(6) The internal risk rating grades presented for residential mortgages and certain personal loans do not take into account loan guarantees or insurance issued by the Canadian government (federal or provincial), Canadian government agencies, or private insurers, as the significant increase in credit risk of these loans is based on relative changes in the loans' lifetime PD without considering collateral or other credit enhancements.

(7) Includes customers' liability under acceptances of \$10,265 million.

Undrawn credit facilities and other off-balance sheet exposures

\$ millions, as at October 31				
	Stage 1	Stage 2	Stage 3	2018 Total
Retail				
– Exceptionally low	\$ 100,772	\$ –	\$ –	\$ 100,772
– Very low	10,217	1,014	–	11,231
– Low	7,873	1,612	–	9,485
– Medium	1,729	1,188	–	2,917
– High	234	417	–	651
– Default	–	–	13	13
– Not rated	348	33	–	381
Gross retail	121,173	4,264	13	125,450
ECL allowance	28	43	–	71
Net retail	121,145	4,221	13	125,379
Business and government				
– Investment grade	78,672	390	–	79,062
– Non-investment grade	41,727	1,198	–	42,925
– Watchlist	75	402	–	477
– Default	–	–	7	7
– Not rated	735	51	–	786
Gross business and government	121,209	2,041	7	123,257
ECL allowance	21	10	–	31
Net business and government	121,188	2,031	7	123,226
Total net undrawn credit facilities and other off-balance sheet exposures	\$ 242,333	\$ 6,252	\$ 20	\$ 248,605

The following tables provide the credit quality of business and government loans and acceptances and retail loans by carrying value as at October 31, 2017. For details on the CIBC rating categories and PD bands, see the "Credit risk" section of the MD&A.

Net business and government loans and acceptances

\$ millions, for the year ended October 31					
Grade	CIBC rating	Corporate	Sovereign	Banks	2017 Total
Investment grade	00 – 47	\$ 37,800	\$ 1,943	\$ 719	\$ 40,462
Non-investment grade	51 – 67	38,946	472	188	39,606
Watch list	70 – 80	745	–	–	745
Default	90	257	–	–	257
Total AIRB exposure		\$ 77,748	\$ 2,415	\$ 907	\$ 81,070
Strong		\$ 765	\$ –	\$ –	\$ 765
Good		126	–	–	126
Satisfactory		9	–	–	9
Weak		–	–	–	–
Default		4	–	–	4
Total slotted exposure		\$ 904	\$ –	\$ –	\$ 904
Standardized exposure		\$ 23,761	\$ 213	\$ 451	\$ 24,425
		\$ 102,413	\$ 2,628	\$ 1,358	\$ 106,399
Less: collective allowance on performing loans					\$ 343
Net business and government loans and acceptances ⁽¹⁾					\$ 106,056

(1) Includes customers' liability under acceptances of \$8,824 million.

Net retail loans

\$ millions, for the year ended October 31					
Risk level	PD bands	Residential mortgages	Personal	Credit cards	2017 Total
Exceptionally low	0.01% – 0.20%	\$ 158,372	\$ 22,384	\$ 3,257	\$ 184,013
Very low	0.21% – 0.50%	22,512	4,107	1,767	28,386
Low	0.51% – 2.00%	19,223	6,307	4,031	29,561
Medium	2.01% – 10.00%	3,076	6,222	2,482	11,780
High	10.01% – 99.99%	340	895	686	1,921
Default	100%	176	8	–	184
Total AIRB exposure		\$ 203,699	\$ 39,923	\$ 12,223	\$ 255,845
Strong		\$ 104	\$ –	\$ –	\$ 104
Good		4	–	–	4
Satisfactory		12	–	–	12
Weak		–	–	–	–
Default		1	–	–	1
Total slotted exposure		\$ 121	\$ –	\$ –	\$ 121
Standardized exposure		\$ 3,306	\$ 873	\$ 155	\$ 4,334
		\$ 207,126	\$ 40,796	\$ 12,378	\$ 260,300
Less: collective allowance on performing loans		\$ 58	\$ 354	\$ 386	\$ 798
Net retail loans		\$ 207,068	\$ 40,442	\$ 11,992	\$ 259,502

Impaired loans

\$ millions, as at October 31	In accordance with IFRS 9			In accordance with IAS 39			
	Gross impaired	Stage 3 allowance	Net impaired	Gross impaired	Individual allowance	Collective allowance ⁽¹⁾	Net impaired
			2018				2017
Residential mortgages	\$ 677	\$ 143	\$ 534	\$ 513	\$ 2	\$ 143	\$ 368
Personal	182	109	73	171	7	134	30
Business and government	621	230	391	626	183	8	435
Total impaired loans ⁽²⁾⁽³⁾	\$ 1,480	\$ 482	\$ 998	\$ 1,310	\$ 192	\$ 285	\$ 833

(1) Includes collective allowance relating to personal, scored small business and mortgage impaired loans that are greater than 90 days delinquent. In addition, we have a collective allowance of \$1,260 million on balances and commitments which are not impaired.

(2) Average balance of gross impaired loans was \$1,333 million (2017: \$1,376 million).

(3) Foreclosed assets of \$14 million (2017: \$21 million) were included in Other assets on the consolidated balance sheet.

Purchased credit-impaired loans

The following table provides details of our purchased credit-impaired loans resulting from the acquisition of The PrivateBank:

\$ millions, as at October 31	2018	2017
Unpaid principal balance ⁽¹⁾	\$ 20	\$ 81
Credit related fair value adjustments	(3)	(15)
Time value of money	(1)	(3)
Carrying value	16	63
Stage 3 allowance (2017: Individually assessed allowance)	(2)	(2)
Carrying value net of related allowance	\$ 14	\$ 61

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

Contractually past due loans but not impaired

This comprises loans where repayment of principal or payment of interest is contractually in arrears. The following table provides an aging analysis of the contractually past due loans:

\$ millions, as at October 31	Less than 31 days	31 to 90 days	Over 90 days	2018 ⁽¹⁾ Total	2017 Total
Residential mortgages	\$ 2,505	\$ 849	\$ –	\$ 3,354	\$ 3,546
Personal	751	186	–	937	915
Credit card	547	172	103	822	853
Business and government	525	158	–	683	811
	\$ 4,328	\$ 1,365	\$ 103	\$ 5,796	\$ 6,125

(1) Effective November 1, 2017, all loans that are contractually 90 days in arrears are automatically classified as impaired and as stage 3 under IFRS 9, except for credit card loans which are classified as impaired and are fully written off when payments are contractually 180 days in arrears or at the earlier of the notice of bankruptcy, settlement proposal, or enlistment of credit counselling services. The determination of impairment was generally the same under IAS 39, except (i) residential mortgages guaranteed or insured by a Canadian government (federal or provincial) or a Canadian government agency were not classified as impaired until payments were contractually 365 days in arrears, and (ii) residential mortgages guaranteed or insured by a private insurer, or loans that were fully secured and in the process of collection were not classified as impaired until payments were contractually 180 days in arrears.

During the year, gross interest income that would have been recorded if impaired loans were treated as current was \$81 million (2017: \$78 million), of which \$27 million (2017: \$23 million) was in Canada and \$54 million (2017: \$55 million) was outside Canada. During the year, interest recognized on impaired loans was \$23 million (2017: \$26 million), and interest recognized on loans before being classified as impaired was \$59 million (2017: \$45 million), of which \$41 million (2017: \$35 million) was in Canada and \$18 million (2017: \$10 million) was outside Canada.

Net interest income after provision for credit losses

\$ millions, for the year ended October 31	2018	2017	2016
Interest income	\$ 17,505	\$ 13,593	\$ 12,092
Interest expense	7,440	4,616	3,726
Net interest income	10,065	8,977	8,366
Provision for credit losses	870	829	1,051
Net interest income after provision for credit losses	\$ 9,195	\$ 8,148	\$ 7,315

Modified financial assets

From time to time, we may modify the contractual terms of loans classified as stage 2 and stage 3 for which the borrower has experienced financial difficulties, through the granting of a concession in the form of below-market rates or terms that we would not otherwise have considered. Changes to the present value of the estimated future cash payments through the expected life of the modified loan discounted at the loan's original effective interest rate are recognized through changes in the ECL allowance and provision for credit losses. During the year ended October 31, 2018, loans classified as stage 2 with an amortized cost of \$133 million and loans classified as stage 3 with an amortized cost of \$119 million, in each case before the time of modification, were modified through the granting of a financial concession in response to the borrower having experienced financial difficulties. In addition, the gross carrying amount of previously modified stage 2 or stage 3 loans that have returned to stage 1 during the year ended October 31, 2018 was \$42 million.

Note 6 | Structured entities and derecognition of financial assets

Structured entities

SEs are entities that have been designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate to administrative tasks only and the relevant activities are directed by means of contractual arrangements. SEs are entities that are created to accomplish a narrow and well-defined objective. CIBC is involved with various types of SEs for which the business activities include securitization of financial assets, asset-backed financings, and asset management.

We consolidate an SE when the substance of the relationship indicates that we control the SE.

Consolidated structured entities

We consolidate the following SEs:

Multi-seller conduit

We sponsor a consolidated multi-seller conduit in Canada that purchases financial assets from clients and finances the purchases by issuing ABS. The sellers to the conduit continue to service the assets and are exposed to credit losses realized on these assets through the provision of over-collateralization. We hold all of the outstanding ABS.

Credit card securitization trusts

We sell an ownership interest in a revolving pool of credit card receivables generated under certain credit card accounts to Cards II Trust (Cards II). Cards II purchases a proportionate share of credit card receivables on certain credit card accounts within designated portfolios, with the proceeds received from the issuance of notes.

Our credit card securitizations are revolving securitizations, with credit card receivable balances fluctuating from month to month as credit card clients repay their balances and new receivables are generated.

The notes are presented as Secured borrowings within Deposits on the consolidated balance sheet.

As at October 31, 2018, \$4.1 billion of credit card receivable assets with a fair value of \$4.1 billion (2017: \$3.0 billion with a fair value of \$3.0 billion) supported associated funding liabilities of \$4.1 billion with a fair value of \$4.1 billion (2017: \$3.0 billion with a fair value of \$3.0 billion).

Covered bond guarantor

We have two covered bond programs, structured and legislative. Covered bonds are full recourse on-balance sheet obligations that are also fully collateralized by assets over which bondholders enjoy a priority claim in the event of CIBC's insolvency. Under the structured program, we transfer a pool of CMHC insured mortgages to the CIBC Covered Bond Guarantor Limited Partnership that warehouses these mortgages and serves as a guarantor to bondholders for payment of interest and principal. Under the legislative program, we transfer a pool of conventional uninsured mortgages to the CIBC Covered Bond (Legislative) Guarantor Limited Partnership that warehouses these mortgages and serves as a guarantor to bondholders for payment of interest and principal.

For both covered bond programs, the assets are owned by the guarantor and not CIBC. As at October 31, 2018, our structured program had outstanding covered bond liabilities of \$0.3 billion with a fair value of \$0.3 billion (2017: \$0.3 billion with a fair value of \$0.3 billion) and our legislative program had outstanding covered bond liabilities of \$19.5 billion with a fair value of \$19.6 billion (2017: \$17.1 billion with a fair value of \$17.3 billion). The covered bond liabilities are supported by a contractually determined portion of the assets transferred to the guarantor and certain contractual arrangements designed to protect the bondholders from adverse events, including foreign currency fluctuations.

CIBC-managed investment funds

We establish and manage investment funds such as mutual funds and pooled funds. We act as an investment manager and earn market-based management fees, and for certain pooled funds, performance fees which are generally based on the performance of the funds. Seed capital is provided from time to time to CIBC-managed investment funds for initial launch. We consolidate those investment funds in which we have power to direct the relevant activities of the funds and in which our seed capital, or our units held, are significant relative to the total variability of returns of the funds such that we are deemed to be a principal rather than an agent. As at October 31, 2018, the total assets and non-controlling interests in consolidated CIBC-managed investment funds were \$64 million and \$31 million, respectively (2017: \$70 million and \$12 million, respectively). Non-controlling interests in consolidated CIBC-managed investment funds are included in Other liabilities as the investment fund units are mandatorily redeemable at the option of the investor.

Community-based tax-advantaged investments

We sponsor certain SEs that invest in community development projects in the U.S. through the issuance of below-market loans that generate a return primarily through the realization of tax credits. As at October 31, 2018, the program had outstanding loans of \$59 million (2017: \$44 million).

Non-consolidated structured entities

The following SEs are not consolidated by CIBC:

Single-seller and multi-seller conduits

We manage and administer a single-seller conduit and several CIBC-sponsored multi-seller conduits in Canada. The multi-seller conduits acquire direct or indirect ownership or security interests in pools of financial assets from our clients and finance the acquisitions by issuing asset-backed commercial paper (ABCP) to investors. The single-seller conduit acquires financial assets and finances these acquisitions through a credit facility provided by a syndicate of financial institutions. The sellers to the conduits may continue to service the assets and may be exposed to credit losses realized on these assets, typically through the provision of over-collateralization or another form of retained interest. The conduits may obtain credit enhancement from third-party providers. As at October 31, 2018, the total assets in the single-seller conduit and multi-seller conduits amounted to \$0.5 billion and \$7.1 billion, respectively (2017: \$0.5 billion and \$5.7 billion, respectively).

We generally provide the multi-seller conduits with commercial paper backstop liquidity facilities, securities distribution, and provide both the single and multi-seller conduits with accounting, cash management, and operations services. The liquidity facilities for the managed and administered multi-seller conduits require us to provide funding, subject to the satisfaction of certain conditions with respect to the conduits, for ABCP not placed with external investors. We also may purchase ABCP issued by the multi-seller conduits for market making purposes.

We are required to maintain certain short-term and/or long-term debt ratings with respect to the liquidity facilities that we provide to the sponsored multi-seller conduits. If we are downgraded below the level specified under the terms of those facilities, we must provide alternative satisfactory liquidity arrangements, such as procuring an alternative liquidity provider that meets the minimum rating requirements.

We may also act as the counterparty to derivative contracts entered into by a multi-seller conduit in order to convert the yield of the underlying assets to match the needs of the multi-seller conduit's investors or to mitigate the interest rate, basis, and currency risk within the conduit.

All fees earned in respect of activities with the conduits are on a market basis.

Third-party structured vehicles – continuing

We have investments in and provide loans, liquidity and credit facilities to third-party SEs. We also have investments in limited partnerships in which we generally are a passive investor of the limited partnerships as a limited partner, and in some cases, we are the co-general partner and have significant influence over the limited partnerships. Similar to other limited partners, we are obligated to provide funding up to our commitment level to these limited partnerships.

Pass-through investment structures

We have exposure to units of third-party or CIBC-managed investment funds. We enter into equity derivative transactions with third-party investment funds to pass-through the return of these referenced funds. These transactions provide the investors of the third-party managed investment funds with the desired exposure to the referenced funds in a tax efficient manner.

Commercial mortgage securitization trust

We sold commercial mortgages through a pass-through arrangement with a trust that securitized these mortgages into various classes of ownership certificates held by various external investors. We continue to perform special servicing of the mortgages in exchange for a market-based fee. As at October 31, 2018, the total outstanding ownership certificates in the Commercial mortgage securitization trust were nil (2017: \$11 million).

CIBC Capital Trust

We have issued senior deposit notes to CIBC Capital Trust, which funds the purchase of these notes through the issuance of CIBC Tier 1 Notes (Notes) that match the term of the senior deposit notes. The Notes are eligible for Tier 1 regulatory capital treatment and are subject to the phase-out rules for capital instruments that will be viewed as non-qualifying capital instruments. See Note 16 for additional details.

CIBC-managed investment funds

As indicated above, we establish investment funds, including mutual funds and pooled funds, to provide clients with investment opportunities and we may receive management fees and performance fees. We may hold insignificant amounts of fund units in these CIBC-managed funds. We do not consolidate these funds if we do not have significant variability of returns from our interests in these funds such that we are deemed to be an agent through our capacity as the investment manager, rather than a principal. We do not guarantee the performance of CIBC-managed investment funds. As at October 31, 2018, the total AUM in the non-consolidated CIBC-managed investment funds amounted to \$114.4 billion (2017: \$113.9 billion).

CIBC structured collateralized debt obligation vehicles

We hold exposures to structured CDO vehicles through investments in, or written credit derivatives referencing, these structured vehicles. We may also provide liquidity facilities or other credit facilities. The structured vehicles are funded through the issuance of senior and subordinated tranches. We may hold a portion of those senior and/or subordinated tranches.

We previously curtailed our business activity in structuring CDO vehicles within our structured credit run-off portfolio. Our exposures to CDO vehicles mainly arose through our previous involvement in acting as structuring and placement agent for the CDO vehicles. As at October 31, 2018, the assets in the CIBC structured CDO vehicles have a total principal amount of \$334 million (2017: \$382 million).

Third-party structured vehicles – structured credit run-off

Similar to our structured activities, we also curtailed our business activities in third-party structured vehicles, within our structured credit run-off portfolio. These positions were initially traded as intermediation, correlation and flow trading, which earned us a spread on matching positions.

Community Reinvestment Act investments

We hold debt and equity investments in limited liability entities to further our U.S. Community Reinvestment Act initiatives with a carrying value of \$241 million (2017: \$159 million). These entities invest in qualifying community development projects, including affordable housing projects, that generate a return primarily by the realization of tax credits. Similar to other limited investors in these entities, we are obligated to provide funding up to our commitment level to these limited liability entities. As at October 31, 2018, the total assets of these limited liability entities were \$4.6 billion (2017: \$3.9 billion).

Our on-balance sheet amounts and maximum exposure to loss related to SEs that are not consolidated are set out in the table below. The maximum exposure comprises the carrying value of unhedged investments, the notional amounts for liquidity and credit facilities, and the notional amounts less accumulated fair value losses for unhedged written credit derivatives on SE reference assets. The impact of CVA is not considered in the table below.

\$ millions, as at October 31, 2018	Single-seller and multi-seller conduits	Third-party structured vehicles – continuing	Structured vehicles run-off ⁽¹⁾	Other ⁽²⁾
On-balance sheet assets at carrying value ⁽³⁾				
Securities	\$ 9	\$ 1,769	\$ 3	\$ 293
Loans	93	1,577	–	–
Investments in equity-accounted associates and joint ventures	–	1	–	5
Derivatives ⁽⁴⁾	–	–	–	5
	\$ 102	\$ 3,347	\$ 3	\$ 303
October 31, 2017	\$ 94	\$ 3,025	\$ 109	\$ 528
On-balance sheet liabilities at carrying value ⁽³⁾				
Deposits	\$ –	\$ –	\$ –	\$ 1,600
Derivatives ⁽⁴⁾	–	–	131	–
	\$ –	\$ –	\$ 131	\$ 1,600
October 31, 2017	\$ –	\$ –	\$ 148	\$ 1,656
Maximum exposure to loss, net of hedges				
Investments and loans	\$ 102	\$ 3,347	\$ 3	\$ 298
Notional of written derivatives, less fair value losses	–	–	26	–
Liquidity, credit facilities and commitments	7,136 ⁽⁵⁾	1,656	13	114
Less: hedges of investments, loans and written derivatives exposure	–	–	(29)	(44)
	\$ 7,238	\$ 5,003	\$ 13	\$ 368
October 31, 2017	\$ 5,835	\$ 5,284	\$ 119	\$ 258

(1) Includes CIBC structured CDO vehicles and third-party structured vehicles.

(2) Includes pass-through investment structures, a commercial mortgage securitization trust, CIBC Capital Trust, and CIBC-managed investment funds and Community Reinvestment Act-related investment vehicles.

(3) Excludes SEs established by CMHC, Fannie Mae, Freddie Mac, Ginnie Mae, FHLB, Federal Farm Credit Bank, and Student Loan Marketing Association.

(4) Comprises written credit default swaps (CDS) and total return swaps (TRS) under which we assume exposures. Excludes foreign exchange derivatives, interest rate derivatives and other derivatives provided as part of normal course client facilitation.

(5) Excludes an additional \$1.7 billion (2017: \$3.0 billion) relating to our backstop liquidity facilities provided to the multi-seller conduits as part of their commitment to fund purchases of additional assets and \$9 million (2017: nil) relating to our direct investments in the multi-seller conduits which we consider investment exposure.

We also hold investments in a variety of third-party investment funds, which include, but are not limited to, exchange-traded funds, mutual funds, and investment trusts. We buy and sell units of these investment funds as part of trading activities or client facilitation businesses that are managed as part of larger portfolios. We generally are a passive investor and are not the investment manager in any of these investment funds. We are not the sponsor of any third-party investment funds, nor do we have the power over key decision-making activities of the funds. Our maximum exposure to loss from our investments is limited to the carrying amounts of our investments and any unutilized commitment we have provided to these funds. In addition, we issue certain structured notes and enter into equity derivatives that are referenced to the return of certain investment funds. Accordingly, we do not include our interests in these third-party investment funds in the table above.

Derecognition of financial assets

We enter into transactions in the normal course of business in which we transfer recognized financial assets directly to third parties, but retain substantially all of the risks and rewards of those assets. The risks include credit, interest rate, foreign exchange, pre-payment and other price risks whereas the rewards include income streams associated with the assets. Due to the retention of risks, the transferred financial assets are not derecognized and such transfers are accounted for as secured borrowing transactions.

The majority of our financial assets transferred to non-consolidated entities that do not qualify for derecognition are: (i) residential mortgage loans under securitization transactions; (ii) securities held by counterparties as collateral under repurchase agreements; and (iii) securities lent under securities lending agreements.

Residential mortgage securitizations

We securitize fully insured fixed- and variable-rate residential mortgage pools through the creation of National Housing Act (NHA) MBS under the NHA MBS Program, sponsored by CMHC. Under the Canada Mortgage Bond Program, sponsored by CMHC, we sell MBS to a government-sponsored securitization trust that issues securities to investors. We do not consolidate the securitization trust. We may act as a counterparty in interest rate swap agreements where we pay the trust the interest due to investors and receive the interest on the MBS. We have also sold MBS directly to CMHC under the Government of Canada's Insured Mortgage Purchase Program as well as other third-party investors.

The sale of mortgage pools that comprise the NHA MBS do not qualify for derecognition as we retain the pre-payment, credit, and interest rate risks associated with the mortgages, which represent substantially all the risks and rewards. As a result, the mortgages remain on our consolidated balance sheet and are carried at amortized cost. We also recognize the cash proceeds from the securitization as Deposits – Secured borrowings.

Securities held by counterparties as collateral under repurchase agreements

We enter into arrangements whereby we sell securities but enter into simultaneous arrangements to repurchase the securities at a fixed price on a future date thereby retaining substantially all the risks and rewards. As a result, the securities remain on our consolidated balance sheet.

Securities lent for cash collateral or for securities collateral

We enter into arrangements whereby we lend securities but with arrangements to receive the securities at a future date, thereby retaining substantially all the risks and rewards. As a result, the securities remain on our consolidated balance sheet.

The following table provides the carrying amount and fair value of transferred financial assets that did not qualify for derecognition and the associated financial liabilities:

\$ millions, as at October 31	2018		2017	
	Carrying amount	Fair value	Carrying amount	Fair value
Residential mortgage securitizations ⁽¹⁾	\$ 18,433	\$ 18,286	\$ 19,948	\$ 19,857
Securities held by counterparties as collateral under repurchase agreements ⁽²⁾	10,482	10,482	10,391	10,391
Securities lent for cash collateral ⁽²⁾	15	15	72	72
Securities lent for securities collateral ⁽²⁾	21,277	21,277	19,291	19,291
	\$ 50,207	\$ 50,060	\$ 49,702	\$ 49,611
Associated liabilities ⁽³⁾	\$ 50,448	\$ 50,564	\$ 50,261	\$ 50,492

(1) Consists mainly of Canadian residential mortgage loans transferred to Canada Housing Trust. Certain cash in transit balances related to the securitization process amounting to \$705 million (2017: \$809 million) have been applied to reduce these balances.

(2) Does not include over-collateralization of assets pledged. Repurchase and securities lending arrangements are conducted with both CIBC-owned and third-party assets on a pooled basis. The carrying amounts represent an estimated allocation related to the transfer of our own financial assets.

(3) Includes the obligation to return off-balance sheet securities collateral on securities lent.

Note 7 | Land, buildings and equipment

\$ millions, as at or for the year ended October 31		Land and buildings ⁽¹⁾	Computer equipment	Office furniture, equipment and other ⁽²⁾	Leasehold improvements	Total
2018	Cost					
	Balance at beginning of year	\$ 1,356	\$ 1,060	\$ 884	\$ 1,073	\$ 4,373
	Additions ⁽³⁾	27	136	62	62	287
	Disposals ⁽⁴⁾	(16)	(35)	(13)	(5)	(69)
	Adjustments ⁽⁵⁾	17	3	4	4	28
	Balance at end of year	\$ 1,384	\$ 1,164	\$ 937	\$ 1,134	\$ 4,619
2017	Balance at end of year	\$ 1,356	\$ 1,060	\$ 884	\$ 1,073	\$ 4,373
2018	Accumulated amortization					
	Balance at beginning of year	\$ 606	\$ 868	\$ 436	\$ 680	\$ 2,590
	Amortization ⁽⁴⁾	37	101	46	73	257
	Disposals ⁽⁴⁾	(8)	(19)	(5)	(5)	(37)
	Adjustments ⁽⁵⁾	9	3	–	2	14
	Balance at end of year	\$ 644	\$ 953	\$ 477	\$ 750	\$ 2,824
2017	Balance at end of year	\$ 606	\$ 868	\$ 436	\$ 680	\$ 2,590
	Net book value					
	As at October 31, 2018	\$ 740	\$ 211	\$ 460	\$ 384	\$ 1,795
	As at October 31, 2017	\$ 750	\$ 192	\$ 448	\$ 393	\$ 1,783

(1) Includes land and building underlying a finance lease arrangement. See below for further details.

(2) Includes \$152 million (2017: \$133 million) of work-in-progress not subject to amortization.

(3) Includes acquisitions through business combinations of nil (2017: \$62 million).

(4) Includes write-offs of fully amortized assets.

(5) Includes foreign currency translation adjustments.

Net additions and disposals during the year were: Canadian Personal and Small Business Banking net additions of \$45 million (2017: net disposals of \$97 million); Canadian Commercial Banking and Wealth Management net additions of \$6 million (2017: net disposals of \$9 million); U.S. Commercial Banking and Wealth Management net additions of \$28 million (2017: net additions of \$68 million); Capital Markets net additions of \$1 million (2017: net additions of nil); and Corporate and Other net additions of \$138 million (2017: net additions of \$82 million).

Finance lease property

Included in land and buildings above is a finance lease property, a portion of which is rented out and considered an investment property. The carrying value of the finance lease property is as follows:

\$ millions, for the year ended October 31	2018	2017
Balance at beginning of year	\$ 379	\$ 418
Amortization	(23)	(24)
Foreign currency adjustments	7	(15)
Balance at end of year	\$ 363	\$ 379

Rental income of \$97 million (2017: \$99 million; 2016: \$99 million) was generated from the investment property. Interest expense of \$25 million (2017: \$28 million; 2016: \$30 million) and non-interest expenses of \$49 million (2017: \$40 million; 2016: \$49 million) were incurred in respect of the finance lease property. Our commitment related to the finance lease is disclosed in Note 21.

Note 8 | Goodwill, software and other intangible assets

Goodwill

The carrying amount of goodwill is reviewed for impairment annually as at August 1 and whenever there are events or changes in circumstances which indicate that the carrying amount may not be recoverable. Goodwill is allocated to CGUs for the purposes of impairment testing based on the lowest level for which identifiable cash inflows are largely independent of cash inflows from other assets or groups of assets. The goodwill impairment test is performed by comparing the recoverable amount of the CGU to which goodwill has been allocated, with the carrying amount of the CGU including goodwill, with any deficiency recognized as impairment to goodwill. The recoverable amount of a CGU is defined as the higher of its estimated fair value less cost to sell and value in use.

We have three significant CGUs to which goodwill has been allocated. The changes in the carrying amount of goodwill are allocated to each CGU as follows:

\$ millions, as at or for the year ended October 31	CGUs					Total
	CIBC FirstCaribbean	Canadian Wealth Management	U.S. Commercial Banking and Wealth Management	Other		
2018						
Balance at beginning of year	\$ 405	\$ 884	\$ 3,952	\$ 126	\$ 5,367	
Acquisitions	–	–	29 ⁽¹⁾	62	91	
Impairment	–	–	–	–	–	
Foreign currency translation adjustments	8	–	97	1	106	
Balance at end of year	\$ 413	\$ 884	\$ 4,078	\$ 189	\$ 5,564	
2017						
Balance at beginning of year ⁽²⁾	\$ 421	\$ 884	\$ 107	\$ 127	\$ 1,539	
Acquisitions	–	–	3,944	–	3,944	
Impairment	–	–	–	–	–	
Foreign currency translation adjustments	(16)	–	(99)	(1)	(116)	
Balance at end of year	\$ 405	\$ 884	\$ 3,952	\$ 126	\$ 5,367	

(1) Additional goodwill recognized from our acquisition of The PrivateBank. See Note 3 for additional details.

(2) Net of cumulative impairment charges for FirstCaribbean International Bank Limited (CIBC FirstCaribbean) goodwill of \$623 million, and nil for other CGUs.

Impairment testing of goodwill and key assumptions

CIBC FirstCaribbean

CIBC became the majority shareholder of CIBC FirstCaribbean in December 2006 and now holds 91.7% of its shares. CIBC FirstCaribbean is a major Caribbean bank offering a full range of financial services in corporate and investment banking, retail and business banking, and wealth management. CIBC FirstCaribbean, which has assets of approximately US\$12 billion, operates in the Caribbean and is traded on the stock exchanges of Barbados, Trinidad, and Eastern Caribbean. The results of CIBC FirstCaribbean are included in Corporate and Other.

The recoverable amount of CIBC FirstCaribbean is based on a value in use calculation that is estimated using a five-year cash flow projection approved by management of CIBC FirstCaribbean and an estimate of the capital required to be maintained in the region to support ongoing operations.

In the second and third quarters of 2018 we performed off-cycle goodwill impairment tests in response to the market conditions that led to the withdrawal of CIBC FirstCaribbean's initial public offering, and the announcement by the Barbados government to restructure its public debt, respectively. In both quarters, we determined that an impairment charge was not required.

In the fourth quarter we performed our annual impairment test as at August 1, 2018, and continued to determine that the estimated recoverable amount of the CIBC FirstCaribbean CGU approximated its carrying amount. As a result, no impairment charge was recognized during 2018. The forecast for CIBC FirstCaribbean used in our impairment test reflects an expectation of continued productive loan growth during the forecast period as well as the expected cash flows from the Government of Barbados debt restructuring.

A terminal growth rate of 2.5% as at August 1, 2018 (August 1, 2017: 2.5%) was applied to the years after the five-year forecast. All of the forecasted cash flows were discounted at an after-tax rate of 14.7% as at August 1, 2018 (16.5% pre-tax) which we believe to be a risk-adjusted discount rate appropriate to CIBC FirstCaribbean (we used an after-tax rate of 14% as at August 1, 2017). The determination of a discount rate and a terminal growth rate require the exercise of judgment. The discount rate was determined based on the following primary factors: (i) the risk-free rate; (ii) an equity risk premium; (iii) beta adjustment to the equity risk premium based on a review of betas of comparable publicly traded financial institutions in the region; and (iv) a country risk premium. The terminal growth rate was based on management's expectations of real growth and forecast inflation rates.

Estimation of the recoverable amount is an area of significant judgment. Reductions in the estimated recoverable amount could arise from various factors, such as, reductions in forecasted cash flows, an increase in the assumed level of required capital, and any adverse changes to the discount rate or the terminal growth rate either in isolation or in any combination thereof. We estimated that a 10% decrease in each of the terminal year's and subsequent years' forecasted cash flows would result in a reduction in the estimated recoverable amount of the CIBC FirstCaribbean CGU of approximately \$135 million as at August 1, 2018. We also estimated that a 50 basis point increase in the after-tax discount rate would result in a reduction in the estimated recoverable amount of the CIBC FirstCaribbean CGU of approximately \$78 million as at August 1, 2018. These sensitivities are indicative only and should be considered with caution, as the effect of the variation in each assumption on the estimated recoverable amount is calculated in isolation without changing any other assumptions. In practice, changes in one factor may result in changes in another, which may magnify, counteract or obfuscate the disclosed sensitivities.

Canadian Wealth Management

The recoverable amount of the Canadian Wealth Management CGU is based on a fair value less cost to sell calculation. The fair value is estimated using an earnings-based approach whereby the forecasted earnings are based on the Wealth Management internal plan which was approved by management and covers a three-year period. The calculation incorporates the forecasted earnings multiplied by an earnings multiple derived from observable price-to-earnings multiples of comparable wealth management institutions. The price-to-earnings multiples of those comparable wealth management institutions ranged from 9.2 to 19.2 as at August 1, 2018 (August 1, 2017: 10.8 to 22.3).

We have determined that the estimated recoverable amount of the Wealth Management CGU was well in excess of its carrying amount as at August 1, 2018. As a result, no impairment charge was recognized during 2018.

If alternative reasonably possible changes in key assumptions were applied, the result of the impairment test would not differ.

U.S. Commercial Banking and Wealth Management

During 2017, we completed the acquisitions of The PrivateBank and Geneva Advisors. The goodwill arising from both acquisitions has been allocated to the U.S. Commercial Banking and Wealth Management CGU.

The recoverable amount of U.S. Commercial Banking and Wealth Management is based on a value in use calculation that is estimated using a five-year cash flow projection approved by management, and an estimate of the capital required to be maintained to support ongoing operations.

We have determined that for the impairment testing performed as at August 1, 2018, the estimated recoverable amount of the CIBC U.S. Commercial Banking and Wealth Management CGU was in excess of its carrying amount. As a result, no impairment charge was recognized during 2018.

A terminal growth rate of 3.5% as at August 1, 2018 (August 1, 2017: n/a) was applied to the years after the five-year forecast. All of the forecasted cash flows were discounted at an after-tax rate of 10.0% as at August 1, 2018 (11.2% pre-tax) which we believe to be a risk-adjusted discount rate appropriate to U.S. Commercial Banking and Wealth Management. The determination of a discount rate and a terminal growth rate require the exercise of judgment. The discount rate was determined based on the following primary factors: (i) the risk-free rate; (ii) an equity risk premium; and (iii) beta adjustment to the equity risk premium based on a review of betas of comparable publicly traded financial institutions in the region. The terminal growth rate was based on management's expectations of real growth and forecast inflation rates.

Other

The goodwill relating to the Other CGUs is comprised of amounts which individually are not considered to be significant. We have determined that for the impairment testing performed as at August 1, 2018, the estimated recoverable amount of these CGUs was in excess of their carrying amounts.

Allocation to strategic business units

Goodwill of \$5,564 million (2017: \$5,367 million) is allocated to the SBUs as follows: Canadian Commercial Banking and Wealth Management of \$954 million (2017: \$892 million), Corporate and Other of \$462 million (2017: \$454 million), U.S. Commercial Banking and Wealth Management of \$4,078 million (2017: \$3,952 million), Capital Markets of \$63 million (2017: \$62 million), and Canadian Personal and Small Business Banking of \$7 million (2017: \$7 million).

Software and other intangible assets

The carrying amount of indefinite-lived intangible assets is provided in the following table:

\$ millions, as at or for the year ended October 31		Contract based ⁽¹⁾	Brand name ⁽²⁾	Total
2018	Balance at beginning of year	\$ 116	\$ 25	\$ 141
	Foreign currency translation adjustments	–	1	1
	Balance at end of year	\$ 116	\$ 26	\$ 142
2017	Balance at beginning of year	\$ 116	\$ 26	\$ 142
	Foreign currency translation adjustments	–	(1)	(1)
	Balance at end of year	\$ 116	\$ 25	\$ 141

(1) Represents management contracts purchased as part of past acquisitions.

(2) Acquired as part of the CIBC FirstCaribbean acquisition.

The components of finite-lived software and other intangible assets are as follows:

\$ millions, as at or for the year ended October 31		Software ⁽¹⁾	Core deposit intangibles ⁽²⁾	Contract based ⁽³⁾	Customer relationships ⁽⁴⁾	Total
2018	Gross carrying amount					
	Balance at beginning of year	\$ 2,632	\$ 599	\$ 44	\$ 310	\$ 3,585
	Additions	363	–	–	–	363
	Disposals⁽⁵⁾	(4)	–	(12)	–	(16)
	Adjustments⁽⁶⁾	(5)	12	2	4	13
	Balance at end of year	\$ 2,986	\$ 611	\$ 34	\$ 314	\$ 3,945
2017	Balance at end of year	\$ 2,632	\$ 599	\$ 44	\$ 310	\$ 3,585
2018	Accumulated amortization					
	Balance at beginning of year	\$ 1,403	\$ 239	\$ 9	\$ 97	\$ 1,748
	Amortization and impairment⁽⁵⁾⁽⁷⁾	285	75	8	32	400
	Disposals⁽⁵⁾	–	–	(12)	–	(12)
	Adjustments⁽⁶⁾	(3)	6	1	2	6
	Balance at end of year	\$ 1,685	\$ 320	\$ 6	\$ 131	\$ 2,142
2017	Balance at end of year	\$ 1,403	\$ 239	\$ 9	\$ 97	\$ 1,748
	Net book value					
	As at October 31, 2018	\$ 1,301	\$ 291	\$ 28	\$ 183	\$ 1,803
	As at October 31, 2017	\$ 1,229	\$ 360	\$ 35	\$ 213	\$ 1,837

(1) Includes \$467 million (2017: \$456 million) of work-in-progress not subject to amortization.

(2) Acquired as part of the acquisitions of CIBC FirstCaribbean and The PrivateBank.

(3) Represents a combination of management contracts purchased as part of past acquisitions, as well as management contracts purchased as part of our acquisitions of The PrivateBank and Geneva Advisors in 2017.

(4) Represents customer relationships associated with past acquisitions, including CIBC Atlantic Trust, and the MasterCard portfolio, as well as customer relationships associated with our acquisitions of The PrivateBank and Geneva Advisors in 2017.

(5) Includes write-offs of fully amortized assets.

(6) Includes foreign currency translation adjustments.

(7) Includes nil impairment losses relating to software (2017: \$2 million).

Net additions and disposals of gross carrying amount during the year were: Canadian Personal and Small Business Banking net additions of nil (2017: net additions of \$1 million); Canadian Commercial Banking and Wealth Management net disposals of nil (2017: net disposals of \$28 million); U.S. Commercial Banking and Wealth Management net additions of \$12 million (2017: net additions of \$471 million); Capital Markets net additions of nil (2017: net additions of \$1 million); and Corporate and Other net additions of \$351 million (2017: net additions of \$392 million).

Note 9 | Other assets

\$ millions, as at October 31	2018	2017
Accrued interest receivable	\$ 1,292	\$ 951
Defined benefit asset (Note 18)	362	200
Gold and silver certificates	251	186
Brokers' client accounts	2,997	1,503
Current tax receivable	3,175	2,783
Other prepayments	685	697
Derivative collateral receivable	5,071	4,420
Accounts receivable	868	512
Other	582	553
	\$ 15,283	\$ 11,805

Note 10 | Deposits⁽¹⁾⁽²⁾

\$ millions, as at October 31	Payable on demand ⁽³⁾	Payable after notice ⁽⁴⁾	Payable on a fixed date ⁽⁵⁾⁽⁶⁾	2018 Total	2017 Total
Personal	\$ 11,845	\$ 100,926	\$ 51,108	\$ 163,879	\$ 159,327
Business and government ⁽⁷⁾	58,989	52,309	128,851	240,149	225,622
Bank	4,186	191	10,003	14,380	13,789
Secured borrowings ⁽⁸⁾	–	–	42,607	42,607	40,968
	\$ 75,020	\$ 153,426	\$ 232,569	\$ 461,015	\$ 439,706
Comprises:					
Held at amortized cost				\$ 453,498	\$ 433,759
Designated at fair value				7,517	5,947
				\$ 461,015	\$ 439,706
Total deposits include:					
Non-interest-bearing deposits					
In domestic offices				\$ 49,858	\$ 50,810
In foreign offices				12,115	12,289
Interest-bearing deposits					
In domestic offices				321,188	297,997
In foreign offices				77,854	78,610
				\$ 461,015	\$ 439,706

(1) Includes deposits of \$155.5 billion (2017: \$145.6 billion) denominated in U.S. dollars and deposits of \$24.3 billion (2017: \$19.9 billion) denominated in other foreign currencies.

(2) Net of purchased notes of \$2,689 million (2017: \$2,465 million).

(3) Includes all deposits for which we do not have the right to require notice of withdrawal. These deposits are generally chequing accounts.

(4) Includes all deposits for which we can legally require notice of withdrawal. These deposits are generally savings accounts.

(5) Includes all deposits that mature on a specified date. These deposits are generally term deposits, guaranteed investment certificates, and similar instruments.

(6) Includes \$190 million (2017: nil) of deposits which are subject to the bank recapitalization (bail-in) conversion regulations issued by the Department of Finance (Canada). These regulations provide certain statutory powers to the Canada Deposit Insurance Corporation (CDIC), including the ability to convert specified eligible shares and liabilities of CIBC into common shares in the event that CIBC is determined to be non-viable.

(7) Includes \$1,600 million (2017: \$1,625 million) of Notes issued to CIBC Capital Trust.

(8) Comprises liabilities issued by or as a result of activities associated with the securitization of residential mortgages, covered bond programme, and consolidated securitization vehicles.

Note 11 | Other liabilities

\$ millions, as at October 31	2018	2017 ⁽¹⁾
Accrued interest payable	\$ 1,300	\$ 1,095
Defined benefit liability (Note 18)	645	766
Gold and silver certificates	95	126
Brokers' client accounts	3,829	2,366
Derivative collateral payable	4,118	3,660
Other deferred items	688	683
Negotiable instruments	930	886
Accrued employee compensation and benefits	2,303	2,085
Accounts payable and accrued expenses	2,138	1,486
Other	2,177	2,122
	\$ 18,223	\$ 15,275

(1) Certain information has been reclassified to conform to the presentation adopted in the current year.

Note 12 | Derivative instruments

As described in Note 1, in the normal course of business, we use various derivative instruments for both trading and ALM purposes. These derivatives limit, modify or give rise to varying degrees and types of risk.

\$ millions, as at October 31	2018		2017	
	Assets	Liabilities	Assets	Liabilities
Trading (Note 2)	\$ 19,318	\$ 19,204	\$ 21,352	\$ 21,275
ALM (Note 2)				
Designated accounting hedges (Note 13)	1,566	1,303	2,454	1,222
Economic hedges ⁽¹⁾	547	466	536	774
	\$ 21,431	\$ 20,973	\$ 24,342	\$ 23,271

(1) Comprises derivatives not designated in hedge accounting relationships under IAS 39.

Derivatives used by CIBC

The majority of our derivative contracts are OTC transactions. OTC transactions consist of: (i) contracts that are bilaterally negotiated and settled between CIBC and the counterparty to the contract; and (ii) contracts that are bilaterally negotiated and then cleared through a central counterparty (CCP). Bilaterally negotiated and settled contracts are usually traded under a standardized International Swaps and Derivatives Association (ISDA) agreement with collateral posting arrangements between CIBC and its counterparties. Terms are negotiated directly with counterparties and the contracts have industry-standard settlement mechanisms prescribed by ISDA. Centrally cleared contracts are generally bilaterally negotiated and then novated to, and cleared through, a CCP. The industry promotes the use of CCPs to clear OTC trades. The central clearing of derivative contracts generally facilitates the reduction of credit exposures due to the ability to net settle offsetting positions. Consequently, derivative contracts cleared through CCPs generally attract less capital relative to those settled with non-CCPs.

The remainder of our derivative contracts are exchange-traded derivatives, which are standardized in terms of their amounts and settlement dates, and are bought and sold on organized and regulated exchanges. These exchange-traded derivative contracts consist primarily of options and futures.

Interest rate derivatives

Forward rate agreements are OTC contracts that effectively fix a future interest rate for a period of time. A typical forward rate agreement provides that at a pre-determined future date, a cash settlement will be made between the counterparties based upon the difference between a contracted rate and a market rate to be determined in the future, calculated on a specified notional principal amount. No exchange of principal amount takes place. Certain forward rate agreements are bilaterally transacted and then novated and settled through a clearing house which acts as a CCP.

Interest rate swaps are OTC contracts in which two counterparties agree to exchange cash flows over a period of time based on rates applied to a specified notional principal amount. A typical interest rate swap would require one counterparty to pay a fixed market interest rate in exchange for a variable market interest rate determined from time to time, with both calculated on a specified notional principal amount. No exchange of principal amount takes place. Certain interest rate swaps are bilaterally transacted and then novated and settled through a clearing house which acts as a CCP.

Interest rate options are contracts in which one party (the purchaser of an option) acquires from another party (the writer of an option), in exchange for a premium, the right, but not the obligation, to either buy or sell, on a specified future date or within a specified time, a specified financial instrument at a contracted price. The underlying financial instrument has a market price which varies in response to changes in interest rates. Options are transacted in both OTC and exchange-traded markets.

Interest rate futures are standardized contracts transacted on an exchange. They are based upon an agreement to buy or sell a specified quantity of a financial instrument on a specified future date, at a contracted price. These contracts differ from forward rate agreements in that they are in standard amounts with standard settlement dates and are transacted through an exchange.

Foreign exchange derivatives

Foreign exchange forwards are OTC contracts in which one counterparty contracts with another to exchange a specified amount of one currency for a specified amount of a second currency, at a future date or range of dates.

Foreign exchange futures contracts are similar in mechanics to foreign exchange forward contracts except that they are in standard currency amounts with standard settlement dates and are transacted through an exchange.

Foreign exchange swap contracts comprise foreign exchange swaps and cross-currency interest rate swaps. Foreign exchange swaps are transactions in which a currency is simultaneously purchased in the spot market and sold for a different currency in the forward market, or vice versa. Cross-currency interest rate swaps are transactions in which counterparties exchange principal and interest flows in different currencies over a period of time. These contracts are used to manage both currency and interest rate exposures.

Credit derivatives

Credit derivatives are OTC contracts designed to transfer the credit risk in an underlying financial instrument (usually termed as a reference asset) from one counterparty to another. The most common credit derivatives are CDS and certain TRS.

CDS contracts provide protection against the decline in value of a reference asset as a result of specified credit events such as default or bankruptcy. These derivatives are similar in structure to an option whereby the purchaser pays a premium to the seller of the CDS contract in return for payment contingent on the occurrence of a credit event. The protection purchaser has recourse to the protection seller for the difference between the face value of the CDS contract and the fair value of the reference asset at the time of settlement. Neither the purchaser nor the seller under the CDS contract has recourse to the entity that issued the reference asset. Certain CDS contracts are cleared through a CCP.

In credit derivative TRS contracts, one counterparty agrees to pay or receive cash amounts based on the returns of a reference asset, including interest earned on these assets in exchange for amounts that are based on prevailing market funding rates. These cash settlements are made regardless of whether there is a credit event. Upon the occurrence of a credit event, the parties may either exchange cash payments according to the value of the defaulted assets or exchange cash based on the notional amount for physical delivery of the defaulted assets.

Equity derivatives

Equity swaps are OTC contracts in which one counterparty agrees to pay, or receive from the other, cash amounts based on changes in the value of a stock index, a basket of stocks or a single stock in exchange for amounts that are based either on prevailing market funding rates or changes in the value of a different stock index, basket of stocks or a single stock. These contracts generally include payments in respect of dividends.

Equity options give the purchaser of the option, for a premium, the right, but not the obligation, to buy from or sell to the writer of an option, an underlying stock index, basket of stocks, or a single stock at a contracted price. Options are transacted in both OTC and exchange markets.

Equity index futures are standardized contracts transacted on an exchange. They are based on an agreement to pay or receive a cash amount based on the difference between the contracted price level of an underlying stock index and its corresponding market price level at a specified future date. There is generally no actual delivery of stocks that comprise the underlying index. These contracts are in standard amounts with standard settlement dates.

Precious metal and other commodity derivatives

We also transact in other derivative products, including commodity forwards, futures, swaps and options, such as precious metal and energy-related products in both OTC and exchange markets.

Notional amounts

The notional amounts are not recorded as assets or liabilities, as they represent the face amount of the contract to which a rate or price is applied to determine the amount of cash flows to be exchanged. In most cases, notional amounts do not represent the potential gain or loss associated with market or credit risk of such instruments.

The following table presents the notional amounts of derivative instruments:

	Residual term to contractual maturity				2018		2017	
	Less than 1 year	1 to 5 years	Over 5 years	Total notional amounts	Trading	ALM	Trading	ALM
Interest rate derivatives								
Over-the-counter								
Forward rate agreements	\$ 13,843	\$ 25	\$ –	\$ 13,868	\$ 5,925	\$ 7,943	\$ 5,352	\$ 4,496
Centrally cleared forward rate agreements	230,383	43,145	–	273,528	273,528	–	235,787	–
Swap contracts	49,556	171,052	74,089	294,697	242,620	52,077	243,136	77,429
Centrally cleared swap contracts	1,166,780	1,079,707	327,149	2,573,636	2,264,721	308,915	1,782,769	263,629
Purchased options	6,308	4,688	792	11,788	8,697	3,091	7,813	5,038
Written options	7,396	4,278	584	12,258	10,417	1,841	6,086	2,072
	1,474,266	1,302,895	402,614	3,179,775	2,805,908	373,867	2,280,943	352,664
Exchange-traded								
Futures contracts	74,461	26,765	78	101,304	99,156	2,148	72,362	1,036
Purchased options	7,273	–	–	7,273	7,273	–	3,850	–
Written options	2,500	–	–	2,500	2,500	–	2,500	–
	84,234	26,765	78	111,077	108,929	2,148	78,712	1,036
Total interest rate derivatives	1,558,500	1,329,660	402,692	3,290,852	2,914,837	376,015	2,359,655	353,700
Foreign exchange derivatives								
Over-the-counter								
Forward contracts	400,397	7,462	839	408,698	387,509	21,189	293,292	6,240
Swap contracts	273,924	60,250	24,108	358,282	299,073	59,209	258,668	61,385
Purchased options	19,096	1,405	63	20,564	20,562	2	22,861	16
Written options	21,060	1,419	64	22,543	22,513	30	23,009	25
	714,477	70,536	25,074	810,087	729,657	80,430	597,830	67,666
Exchange-traded								
Futures contracts	11	–	–	11	11	–	1	–
Total foreign exchange derivatives	714,488	70,536	25,074	810,098	729,668	80,430	597,831	67,666
Credit derivatives								
Over-the-counter								
Total return swap contracts – protection sold	–	–	–	–	–	–	–	–
Credit default swap contracts – protection purchased	22	372	365	759	634	125	376	111
Centrally cleared credit default swap contracts – protection purchased	–	404	197	601	443	158	1,016	155
Credit default swap contracts – protection sold	26	76	157	259	157	102	343	111
Centrally cleared credit default swap contracts – protection sold	–	13	198	211	211	–	258	–
Total credit derivatives	48	865	917	1,830	1,445	385	1,993	377
Equity derivatives								
Over-the-counter	79,276	22,876	94	102,246	100,762	1,484	73,064	1,143
Exchange-traded	60,654	20,275	1,109	82,038	82,038	–	54,897	–
Total equity derivatives	139,930	43,151	1,203	184,284	182,800	1,484	127,961	1,143
Precious metal derivatives								
Over-the-counter	4,880	19	–	4,899	4,899	–	3,154	–
Exchange-traded	1,057	34	–	1,091	1,091	–	2,929	–
Total precious metal derivatives	5,937	53	–	5,990	5,990	–	6,083	–
Other commodity derivatives								
Over-the-counter	16,045	14,738	2,478	33,261	33,261	–	27,628	3
Centrally cleared commodity derivatives	21	8	–	29	29	–	27	–
Exchange-traded	17,177	9,331	444	26,952	26,952	–	20,363	–
Total other commodity derivatives	33,243	24,077	2,922	60,242	60,242	–	48,018	3
Total notional amount of which:	\$ 2,452,146	\$ 1,468,342	\$ 432,808	\$ 4,353,296	\$ 3,894,982	\$ 458,314	\$ 3,141,541	\$ 422,889
Over-the-counter ⁽¹⁾	2,289,013	1,411,937	431,177	4,132,127	3,675,961	456,166	2,984,639	421,853
Exchange-traded	163,133	56,405	1,631	221,169	219,021	2,148	156,902	1,036

(1) For OTC derivatives that are not centrally cleared, \$1,064.5 billion (2017: \$933.8 billion) are with counterparties that have two-way collateral posting arrangements, \$33.8 billion (2017: \$17.3 billion) are with counterparties that have one-way collateral posting arrangements, and \$185.8 billion (2017: \$171.8 billion) are with counterparties that have no collateral posting arrangements. All counterparties with whom we have one-way collateral posting arrangements are sovereign entities.

Risk

In the following sections, we discuss the risks related to the use of derivatives and how we manage these risks.

Market risk

Derivatives are financial instruments where valuation is linked to changes in interest rates, foreign exchange rates, equity, commodity, credit prices or indices. Changes in value as a result of the aforementioned risk factors is referred to as market risk.

Market risk arising from derivative trading activities is managed in order to mitigate risk in line with CIBC's risk appetite. To manage market risk, we set market risk limits and may enter into hedging transactions.

Credit risk

Credit risk arises from the potential for a counterparty to default on its contractual obligations and the possibility that prevailing market conditions are such that a loss would occur in replacing the defaulted transaction. We limit the credit risk of OTC derivatives through the use of ISDA master netting agreements, collateral, CCPs and other credit mitigation techniques. We clear eligible derivatives through CCPs in accordance with various global initiatives. Where feasible, we novate existing bilaterally negotiated and settled derivatives to a CCP in an effort to reduce CIBC's credit risk exposure.

We negotiate netting agreements to contain the build-up of credit exposure resulting from multiple transactions with more active counterparties. Such agreements provide for the simultaneous close-out and netting of all transactions with a counterparty, in the case of a counterparty default. A number of these agreements incorporate a Credit Support Annex, which is a bilateral security agreement that, among other things, provides for the exchange of collateral between parties in the event that one party's exposure to the other exceeds agreed upon thresholds.

Written OTC options, including CDS, generally have no credit risk for the writer if the counterparty has already performed in accordance with the terms of the contract through payment of the premium at inception. These written options will, however, have some credit risk to the extent of any unpaid premiums.

Credit risk on exchange-traded futures and options is limited, as these transactions are standardized contracts executed on established exchanges, whose CCPs assume the obligations of both counterparties. Similarly, swaps that are centrally cleared represent limited credit risk because these transactions are novated to the CCP, which assumes the obligations of the original bilateral counterparty. All exchange-traded and centrally cleared contracts are subject to initial margin and daily settlement of variation margins, designed to protect participants from losses incurred from a counterparty default.

The following table summarizes our credit exposure arising from derivatives, except for those that are traded on an exchange or are CCP settled. The calculation of the risk-weighted amount is prescribed by OSFI. The current replacement cost is the estimated cost to replace all contracts that have a positive market value, representing an unrealized gain to us. The replacement cost of an instrument is dependent upon its terms relative to prevailing market prices, and will fluctuate as market prices change and as the derivative approaches its scheduled maturity.

The credit equivalent amount is the sum of the current replacement cost and the potential credit exposure, adjusted for master netting agreements and the impact of collateral. The potential credit exposure is an estimate of the amount by which the current replacement cost could increase over the remaining term of each transaction, based on a formula prescribed by OSFI. The credit equivalent amount is then multiplied by counterparty risk variables to arrive at the risk-weighted amount. The risk-weighted amount is used in determining the regulatory capital requirements for derivatives.

\$ millions, as at October 31

	2018										2017
	Current replacement cost			Credit equivalent amount ⁽¹⁾	Risk-weighted amount	Current replacement cost			Credit equivalent amount ⁽¹⁾	Risk-weighted amount	
	Trading	ALM	Total			Trading	ALM	Total			
Interest rate derivatives											
Over-the-counter											
Forward rate agreements	\$ 113	\$ –	\$ 113	\$ 39	\$ 2	\$ 56	\$ 1	\$ 57	\$ 29	\$ 3	
Swap contracts	4,603	773	5,376	5,359	539	6,968	1,065	8,033	4,993	653	
Purchased options	92	11	103	20	8	153	3	156	55	22	
	4,808	784	5,592	5,418	549	7,177	1,069	8,246	5,077	678	
Exchange-traded	1	–	1	170	5	–	–	–	88	2	
	4,809	784	5,593	5,588	554	7,177	1,069	8,246	5,165	680	
Foreign exchange derivatives											
Over-the-counter											
Forward contracts	2,916	117	3,033	3,793	1,017	3,603	87	3,690	3,644	938	
Swap contracts	4,825	1,205	6,030	4,528	886	6,028	1,707	7,735	4,350	847	
Purchased options	240	–	240	259	83	217	1	218	310	81	
	7,981	1,322	9,303	8,580	1,986	9,848	1,795	11,643	8,304	1,866	
Credit derivatives											
Over-the-counter											
Credit default swap contracts											
– protection purchased	115	–	115	46	9	130	–	130	90	10	
– protection sold	3	–	3	3	–	11	–	11	6	–	
	118	–	118	49	9	141	–	141	96	10	
Equity derivatives											
Over-the-counter	1,951	7	1,958	2,259	535	1,197	126	1,323	2,033	520	
Exchange-traded	1,659	–	1,659	4,131	116	1,541	–	1,541	2,837	84	
	3,610	7	3,617	6,390	651	2,738	126	2,864	4,870	604	
Precious metal derivatives											
Over-the-counter	63	–	63	62	23	40	–	40	43	19	
Exchange-traded	143	–	143	17	1	186	–	186	24	1	
	206	–	206	79	24	226	–	226	67	20	
Other commodity derivatives											
Over-the-counter	2,527	–	2,527	4,046	1,523	1,138	–	1,138	2,314	902	
Exchange-traded	67	–	67	1,480	59	84	–	84	1,003	40	
	2,594	–	2,594	5,526	1,582	1,222	–	1,222	3,317	942	
Non-trade exposure related to central counterparties											
					224					176	
Common equity tier 1 (CET1) CVA charge											
					4,236					3,498	
Total derivatives before netting											
	19,318	2,113	21,431	26,212	9,266	21,352	2,990	24,342	21,819	7,796	
Less: effect of netting			(11,789)					(13,977)			
Total derivatives											
			\$ 9,642	\$ 26,212	\$ 9,266			\$ 10,365	\$ 21,819	\$ 7,796	

(1) Sum of current replacement cost and potential future exposure, adjusted for master netting agreements and the impact of collateral amounting to \$5,036 million (2017: \$4,359 million). The collateral comprises cash of \$3,961 million (2017: \$3,534 million) and government securities of \$1,075 million (2017: \$825 million). Of the collateral, \$5,020 million (2017: \$4,341 million) relates to eligible financial collateral for AIRB exposures that is reflected in the loss given default risk variable used in the determination of risk-weighted assets.

Operating limits

We establish counterparty credit limits and limits for CCP exposures based on a counterparty's creditworthiness and the type of trading relationship with each counterparty (underlying agreements, business volumes, product types, tenors, etc.)

CVA

A CVA is determined using the fair value based exposure we have on derivative contracts. We believe that we have made appropriate fair value adjustments to date. The establishment of fair value adjustments involves estimates that are based on accounting processes and judgments by management. We evaluate the adequacy of the fair value adjustments on an ongoing basis. Market and economic conditions relating to derivative counterparties may change in the future, which could result in significant future losses.

Our methodology in establishing CVA against other derivative counterparties is calculated using a fair value based exposure measure. We use market-observed credit spreads or proxies, as appropriate. During the year, we recorded a loss of \$6 million (2017: gain of \$48 million; 2016: loss of \$12 million), excluding the impact of the adoption of funding valuation adjustments, on our positions with derivative counterparties.

Note 13 | Designated accounting hedges

Hedge accounting

We apply hedge accounting as part of managing the market risk of certain non-trading portfolios arising from changes due to interest rates, foreign exchange rates, and equity market prices. Please see the shaded sections of the "Non-trading activities" on page 68 of the MD&A for further information on our risk management strategy for these risks. See Note 12 for further information on the derivatives used by CIBC.

Interest rate risk

The majority of our derivative contracts used to hedge certain exposures to benchmark interest rate risk are interest rate swaps. For fair value hedges, we convert our fixed interest rate exposures from the hedged financial instruments to floating interest rate exposures. For cash flow hedges, we convert certain exposures to cash flow variability from our variable rate instruments to fixed interest rate exposures.

Foreign currency risk

For our fair value hedges, we mainly use various combinations of cross-currency interest rate swaps and interest rate swaps to hedge our exposures to foreign currency risk together with interest rate risk, converting our fixed foreign currency rate exposures to floating functional currency rate exposures.

For our cash flow hedges, the majority of our derivative contracts are used to hedge our exposures to cash flow variability arising from fluctuations in foreign exchange rates, and mainly consist of cross-currency interest rate swaps. We also use foreign exchange forwards and synthetic forwards created from interest rate swaps to hedge certain foreign currency contractual expenses.

For NIFO hedges, we use a combination of foreign denominated deposit liabilities and foreign exchange forwards to manage our foreign currency exposure of our NIFOs with a functional currency other than the Canadian dollar.

Equity price risk

We use cash settled total return swaps in designated cash flow hedge relationships to hedge changes in CIBC's share price in respect of certain cash-settled share-based compensation awards. Note 17 provides details on our cash-settled share-based compensation plans.

For the hedge relationships above, hedge effectiveness is assessed at the inception of the hedge relationship and on an ongoing basis, primarily using the dollar offset method. The sources of hedge ineffectiveness are mainly attributed to the following:

- Utilization of hedging instruments that have a non-zero fair value at the inception of the hedge relationship;
- Differences in fixed rates, when contractual coupons of the fixed rate hedged items are designated;
- Differences in the discounting factors between the hedged item and the hedging instruments arising from different rate reset frequencies and timing of cash flows; and
- Differences in the discount curves to determine the basis adjustments of the hedged items and the fair value of the hedging derivatives, including from the application of OIS and CVA to the valuation of derivatives when they are applicable.

Designated hedging instruments

The following table provides a summary of financial instruments designated as hedging instruments:

\$ millions, as at October 31, 2018	Notional amount of the hedging instrument ⁽¹⁾	Maturity range			Fair value of the hedging derivatives		Gains (losses) on changes in fair value used for calculating hedge ineffectiveness
		Less than 1 year	1-5 years	Over 5 years	Assets	Liabilities	
Cash flow hedges							
Foreign exchange risk							
Foreign exchange forwards	\$ 138	\$ 138	\$ –	\$ –	\$ 2	\$ –	\$ (5)
Cross-currency interest rate swaps	18,421	13,377	5,044	–	351	234	82
Interest rate risk							
Interest rate swaps	4,468	395	4,073	–	–	15	(57)
Equity share price risk							
Equity swaps	1,406	173	1,233	–	–	89	26
	\$ 24,433	\$ 14,083	\$ 10,350	\$ –	\$ 353	\$ 338	\$ 46
NIFO hedges							
Foreign exchange risk							
Foreign exchange forwards	\$ 193	\$ 193	\$ –	\$ –	\$ 11	\$ 6	\$ (4)
Deposits ⁽²⁾	17,158	17,158	–	–	n/a	n/a	(388)
	\$ 17,351	\$ 17,351	\$ –	\$ –	\$ 11	\$ 6	\$ (392)
Fair value hedges							
Interest rate risk							
Interest rate swaps	\$ 174,556	\$ 50,347	\$ 110,948	\$ 13,261	\$ 380	\$ 164	\$ (36)
Foreign exchange / interest rate risk							
Cross-currency interest rate swaps	36,308	15,528	19,267	1,513	799	795	(63)
Interest rate swaps	17,310	3,850	12,817	643	23	–	(15)
	\$ 228,174	\$ 69,725	\$ 143,032	\$ 15,417	\$ 1,202	\$ 959	\$ (114)
	\$ 269,958	\$ 101,159	\$ 153,382	\$ 15,417	\$ 1,566	\$ 1,303	\$ (460)

(1) For some hedge relationships, we apply a combination of derivatives to hedge the underlying exposures, therefore, the notional amounts of the derivatives generally exceed the carrying amount of the hedged items.

(2) Notional amount represents the principal amount of deposits as at October 31, 2018.

n/a Not applicable.

The following table provides the average rate or price of the hedging derivatives:

As at October 31, 2018		Average exchange rate ⁽¹⁾		Average fixed interest rate	Average share price
Cash flow hedges					
Foreign exchange risk					
Foreign exchange forwards	USD – CAD	1.29		n/a	n/a
Cross-currency interest rate swaps	EUR – CAD	1.51		n/a	n/a
	GBP – CAD	1.72		n/a	n/a
	USD – CAD	1.28		n/a	n/a
Interest rate risk					
Interest rate swaps		n/a	CAD	2.45 %	n/a
		n/a	USD	2.16 %	n/a
Equity share price risk					
Equity swaps		n/a		n/a	\$ 109.52
NIFO hedges					
Foreign exchange risk					
Foreign exchange forwards	AUD – CAD	0.93		n/a	n/a
	HKD – CAD	0.17		n/a	n/a
	JPY – CAD	0.01		n/a	n/a
Fair value hedges					
Interest rate risk					
Interest rate swaps		n/a	CAD	1.84 %	n/a
Foreign exchange / interest rate risk					
Cross-currency interest rate swaps	EUR – CAD	1.49		0.10 %	n/a
	GBP – CAD	1.60		1.06 %	n/a
	USD – CAD	1.30		2.36 %	n/a
Interest rate swaps		n/a	EUR	0.05 %	n/a
		n/a	GBP	0.78 %	n/a

(1) Includes average foreign exchange rates and interest rates relating to significant hedging relationships.
n/a Not applicable.

Designated hedged items

The following table provides information on designated hedged items:

\$ millions, as at or for the year ended October 31, 2018	Carrying amount of the hedged item		Accumulated amount of fair value hedge adjustments on the hedged item		Gains (losses) on changes in fair value used for calculating hedge ineffectiveness
	Assets	Liabilities	Assets	Liabilities	
Cash flow hedges ⁽¹⁾					
Foreign exchange risk					
Forecasted expenses	n/a	n/a	n/a	n/a	\$ 5
Deposits	\$ –	\$ 13,456	n/a	n/a	(81)
Interest rate risk					
Loans	4,463	–	n/a	n/a	57
Equity share price risk					
Share-based payment	–	1,186	n/a	n/a	(27)
	\$ 4,463	\$ 14,642	n/a	n/a	\$ (46)
NIFO hedges					
	\$ 17,351	\$ –	n/a	n/a	\$ 392
Fair value hedges ⁽²⁾					
Interest rate risk					
Securities	\$ 17,046	\$ –	\$ (370)	\$ –	\$ (338)
Loans	61,363	–	(1,036)	–	(626)
Deposits	–	72,839	–	(1,205)	907
Subordinated indebtedness	–	3,893	–	(48)	58
Foreign exchange / interest rate risk					
Loans	6	–	–	–	–
Deposits	–	19,844	–	(112)	82
	\$ 78,416	\$ 96,576	\$ (1,404)	\$ (1,364)	\$ 83

(1) As at October 31, 2018, the amount remaining in AOCI related to the discontinued cash flow hedges was immaterial.

(2) As at October 31, 2018, the accumulated fair value hedge net liability adjustment remaining on the consolidated balance sheet related to discontinued fair value hedges was \$153 million.

n/a Not applicable.

Hedge accounting gains (losses) on the consolidated statement of income and consolidated statement of comprehensive income

\$ millions, for the year ended October 31, 2018	Beginning balance of AOCI – hedge reserve (after-tax)	Change in the value of the hedging instrument recognized in OCI (before-tax)	Amount reclassified from accumulated OCI to income (before-tax) ⁽¹⁾	Tax benefit (expense)	Ending balance of AOCI hedge reserve (after-tax)	Hedge ineffectiveness gains (losses) recognized in income
Cash flow hedges						
Foreign exchange risk	\$ 5	\$ 6	\$ (6)	\$ –	\$ 5	\$ –
Interest rate risk	(3)	(56)	(2)	16	(45)	–
Equity share price risk	31	17	(27)	1	22	(1)
	\$ 33	\$ (33)	\$ (35)	\$ 17	\$ (18)	\$ (1)
NIFO hedges – foreign exchange risk						
Hedges of net investment in foreign operations	\$ (780)	\$ (392)	\$ –	\$ 43	\$ (1,129)	\$ –

(1) During the year ended October 31, 2018, the amount reclassified from AOCI to net income for cash flow hedges of forecasted transactions that were no longer expected to occur was nil.

\$ millions, for the year ended October 31, 2018	Gains (losses) on the hedging instruments	Gains (losses) on the hedged items attributed to hedged risk	Hedge ineffectiveness gains (losses) recognized in income
Fair value hedges			
Interest rate risk	\$ (36)	\$ 1	\$ (35)
Foreign exchange / interest rate risk	(78)	82	4
	\$ (114)	\$ 83	\$ (31)

The following table provides the notional and carrying values of the derivatives designated as the hedging instruments in 2017:

\$ millions, as at October 31, 2017	Derivatives notional amount	Carrying value	
		Positive	Negative
Fair value hedges	\$ 210,019	\$ 1,717	\$ 907
Cash flow hedges	23,332	419	315
NIFO hedges	5,712	318	–
	\$ 239,063	\$ 2,454	\$ 1,222

In addition, as at October 31, 2017, foreign currency denominated deposit liabilities of \$45 million and \$17.9 billion had been designated as hedging instruments in fair value hedges of foreign exchange risk and NIFO hedges, respectively.

The following table presents hedge ineffectiveness gains (losses) recognized in the consolidated statement of income for 2017 and 2016:

\$ millions, for the year ended October 31	2017	2016
Fair value hedges ⁽¹⁾		
Gains (losses) on hedging instruments	\$ (24)	\$ (520)
Gains (losses) on hedged items attributable to hedged risks	73	458
	\$ 49	\$ (62)
Cash flow hedges ⁽²⁾⁽³⁾	\$ –	\$ –

(1) Recognized in Net interest income.

(2) Recognized in Non-interest income – Other and Non-interest expenses – Other.

(3) Includes NIFO hedges.

Portions of derivative gains (losses) that by designation were excluded from the assessment of hedge effectiveness for fair value, cash flow, and NIFO hedging activities are included in the consolidated statement of income, and are not significant for the years ended October 31, 2017 and 2016.

As at October 31, 2017, the cash flows designated as hedged items were expected to occur as follows:

\$ millions, as at October 31, 2017	Within 1 year	1 – 3 years	3 – 8 years	Over 8 years
Net cash flows	\$ (465)	\$ (921)	\$ (8)	\$ –

As at October 31, 2017, cash flows designated in cash flow hedges of \$332 million, \$189 million and \$8 million were expected to affect net income in the next 12 months, 1 to 3 years and 3 to 8 years, respectively.

Note 14 | Subordinated indebtedness

The debt issues included in the table below are outstanding unsecured obligations of CIBC and its subsidiaries and are subordinated to the claims of depositors and other creditors as set out in their terms. Foreign currency denominated indebtedness funds foreign currency denominated assets (including our NIFOs). All redemptions are subject to regulatory approval.

Terms of subordinated indebtedness

		Earliest date redeemable			2018		2017	
Interest rate %	Contractual maturity date	At greater of Canada Yield Price ⁽¹⁾ and par		Denominated in foreign currency	Par value	Carrying value ⁽²⁾	Par value	Carrying value ⁽²⁾
		At par	At par					
Fixed ⁽³⁾	September 23, 2018			TT\$195 million ⁽⁴⁾	\$ –	\$ –	\$ 37	\$ 37
6.00 ⁽⁵⁾⁽⁶⁾	June 6, 2023	June 6, 2008	June 6, 2018		–	–	600	598
5.75 ⁽⁷⁾	July 11, 2024		July 11, 2018	TT\$175 million	34	34	–	–
3.00 ⁽⁸⁾⁽⁹⁾	October 28, 2024		October 28, 2019		1,000	986	1,000	986
3.42 ⁽⁹⁾⁽¹⁰⁾	January 26, 2026		January 26, 2021		1,000	966	1,000	975
3.45 ⁽⁹⁾⁽¹¹⁾	April 4, 2028		April 4, 2023		1,500	1,479	–	–
8.70	May 25, 2029 ⁽¹²⁾				25	38	25	41
11.60	January 7, 2031	January 7, 1996			200	178	200	188
10.80	May 15, 2031	May 15, 2021			150	132	150	139
8.70	May 25, 2032 ⁽¹²⁾				25	39	25	43
8.70	May 25, 2033 ⁽¹²⁾				25	40	25	43
8.70	May 25, 2035 ⁽¹²⁾				25	42	25	45
Floating ⁽¹³⁾	July 31, 2084		July 27, 1990	US\$66 million ⁽¹⁴⁾	86	86	85	85
Floating ⁽¹⁵⁾	August 31, 2085		August 20, 1991	US\$17 million ⁽¹⁶⁾	23	23	22	22
					4,093	4,043	3,194	3,202
Subordinated indebtedness sold short (held) for trading purposes					37	37	7	7
					\$ 4,130	\$ 4,080	\$ 3,201	\$ 3,209

- (1) Canada Yield Price: a price calculated at the time of redemption to provide a yield to maturity equal to the yield of a Government of Canada bond of appropriate maturity plus a pre-determined spread.
- (2) Carrying values of fixed-rate subordinated indebtedness notes reflect the impact of interest rate hedges in an effective hedge relationship.
- (3) During 2018, we redeemed all \$37 million of our Guaranteed Subordinated Term Notes due September 23, 2018. In accordance with their terms, the Debentures were redeemed at 100% of their principal amount, plus accrued and unpaid interest thereon.
- (4) TT\$195 million (2017: nil) was redeemed during the year.
- (5) Interest rate is fixed at the indicated rate until the earliest date redeemable at par by CIBC and, thereafter, at a rate of 2.50% above the three-month Canadian dollar bankers' acceptance rate.
- (6) \$600 million (2017: nil) was redeemed during the year.
- (7) Guaranteed Subordinated Term Notes in Trinidad and Tobago dollars issued on July 11, 2018 by FirstCaribbean International Bank (Trinidad & Tobago) Limited, a subsidiary of CIBC FirstCaribbean, and guaranteed on a subordinated basis by CIBC FirstCaribbean.
- (8) Interest rate is fixed at the indicated rate until the earliest date redeemable at par by CIBC and, thereafter, at a rate of 1.19% above the three-month Canadian dollar bankers' acceptance rate.
- (9) Debentures are also subject to a non-viability contingent capital (NVCC) provision, necessary for the Debentures to qualify as Tier 2 regulatory capital under Basel III. As such, the Debentures are automatically converted into common shares upon the occurrence of a Trigger Event as described in the capital adequacy guidelines. In such an event, the Debentures are convertible into a number of common shares, determined by dividing 150% of the par value plus accrued and unpaid interest by the average common share price (as defined in the relevant prospectus supplements) subject to a minimum price of \$5.00 per share (subject to adjustment in certain events as defined in the relevant prospectus supplements).
- (10) Interest rate is fixed at the indicated rate until the earliest date redeemable at par by CIBC and, thereafter, at a rate of 2.57% above the three-month Canadian dollar bankers' acceptance rate.
- (11) Interest rate is fixed at the indicated rate until the earliest date redeemable at par by CIBC and, thereafter, at a rate of 1.00% above the three-month Canadian dollar bankers' acceptance rate.
- (12) Not redeemable prior to maturity date.
- (13) Interest rate is based on the six-month US\$ London Interbank Offered Rate (LIBOR) plus 0.25%.
- (14) Nil (2017: US\$34 million) of this issue was repurchased and cancelled during the year.
- (15) Interest rate is based on the six-month US\$ LIBOR plus 0.125%.
- (16) Nil (2017: US\$19 million) of this issue was repurchased and cancelled during the year.

Note 15 | Common and preferred share capital

The following table presents the outstanding number of shares and dividends paid:

Outstanding shares and dividends paid

\$ millions, except number of shares and per share amounts, as at or for the year ended October 31

	2018				2017				2016			
	Shares outstanding		Dividends paid		Shares outstanding		Dividends paid		Shares outstanding		Dividends paid	
	Number of shares	Amount	Amount	\$ per share	Number of shares	Amount	Amount	\$ per share	Number of shares	Amount	Amount	\$ per share
Common shares	442,823,361	\$ 13,242	\$ 2,356	\$ 5.32	439,329,713	\$ 12,550	\$ 2,121	\$ 5.08	397,055,398	\$ 8,025	\$ 1,879	\$ 4.75
Class A Preferred Shares												
Series 39	16,000,000	400	16	0.98	16,000,000	400	16	0.98	16,000,000	400	16	0.98
Series 41	12,000,000	300	11	0.94	12,000,000	300	11	0.94	12,000,000	300	11	0.94
Series 43	12,000,000	300	11	0.90	12,000,000	300	11	0.90	12,000,000	300	11	0.90
Series 45	32,000,000	800	35	1.10	32,000,000	800	14	0.46	–	–	–	–
Series 47	18,000,000	450	16	0.88	–	–	–	–	–	–	–	–
	\$ 2,250	\$ 89			\$ 1,800	\$ 52			\$ 1,000	\$ 38		
Treasury shares –common shares	3,019	\$ 1			(16,410)	\$ (2)			14,882	\$ 1		
Treasury shares –preferred shares	–	–			(116,671)	(3)			–	–		

Common shares

CIBC's authorized capital consists of an unlimited number of common shares, without nominal or par value.

Common shares issued

\$ millions, except number of shares, as at or for the year ended October 31

	2018		2017		2016	
	Number of shares	Amount	Number of shares	Amount	Number of shares	Amount
Balance at beginning of year	439,313,303	\$ 12,548	397,070,280	\$ 8,026	397,291,068	\$ 7,813
Issuance pursuant to:						
Acquisition of The PrivateBank	1,689,450	194	32,137,402	3,443	–	–
Acquisition of Geneva Advisors	–	–	1,204,344	126	–	–
Acquisition of Wellington Financial	378,848	47	–	–	–	–
Equity-settled share-based compensation plans	999,675	95	990,934	91	815,767	72
Shareholder investment plan ⁽¹⁾	2,880,782	337	6,870,584	749	1,662,972	164
Employee share purchase plan ⁽²⁾	1,044,893	123	1,071,051	117	373,382	37
	446,306,951	\$ 13,344	439,344,595	\$ 12,552	400,143,189	\$ 8,086
Purchase of common shares for cancellation	(3,500,000)	(104)	–	–	(3,081,300)	(61)
Treasury shares	19,429	3	(31,292)	(4)	8,391	1
Balance at end of year ⁽³⁾	442,826,380	\$ 13,243	439,313,303 ⁽⁴⁾	\$ 12,548	397,070,280	\$ 8,026

(1) Commencing on October 28, 2016, CIBC has met the requirements for additional common shares for the Shareholder Investment Plan (the Plan) by issuing shares from Treasury. The participants in the Dividend Reinvestment Option and the Stock Dividend Option of the Plan received a 2% discount to average market price on dividends reinvested in additional common shares. Effective with the dividends paid on April 27, 2018, the discount was removed. The participants in the Share Purchase Option of the Plan continue to receive shares issued from Treasury with no discount.

(2) Commencing June 29, 2016, employee contributions to our Canadian ESPP have been used to purchase common shares from Treasury.

(3) Excludes 60,764 restricted shares as at October 31, 2018 (2017: 190,285; 2016: nil).

(4) Excludes 2,010,890 common shares which were issued and outstanding but which had not been acquired by a third party as at October 31, 2017. These shares were issued as a component of our acquisition of The PrivateBank.

Common shares reserved for issue

As at October 31, 2018, 15,703,861 common shares (2017: 6,654,170) were reserved for future issue pursuant to stock option plans, 16,160,842 common shares (2017: 19,041,624) were reserved for future issue pursuant to the Shareholder Investment Plan, 3,043,087 common shares (2017: 2,771,650) were reserved for future issue pursuant to the employee share purchase plan and other activities, and 1,561,767,500 common shares (2017: 1,012,992,500) were reserved for future issue pursuant to instruments which include an NVCC provision requiring conversion into common shares upon the occurrence of a Trigger Event as described in the capital adequacy guidelines.

Normal course issuer bid

On May 31, 2018, we announced that the Toronto Stock Exchange (TSX) had accepted the notice of CIBC's intention to commence a normal course issuer bid (NCIB). Purchases under this bid will terminate upon the earlier of: (i) CIBC purchasing up to a maximum of 9 million common shares; (ii) CIBC providing a notice of termination; or (iii) June 3, 2019. During the year, we purchased and cancelled 3,500,000 common shares under this bid at an average price of \$119.22 for a total amount of \$417 million.

The following table shows common shares purchased and cancelled under previously expired NCIBs.

\$ millions, except number of shares, as at or for the year ended October 31

TSX approval date	2018		2017		2016	
	Number of shares	Amount	Number of shares	Amount	Number of shares	Amount
September 16, 2015 ⁽¹⁾	–	\$ –	–	\$ –	3,081,300	\$ 270
March 10, 2017 ⁽²⁾	–	–	–	–	–	–
	–	\$ –	–	\$ –	3,081,300	\$ 270

(1) Common shares were repurchased at an average price of \$87.83 under this NCIB, including 1,400,000 common shares purchased and cancelled under a private agreement at an average price of \$86.94 for a total amount of \$122 million on January 8, 2016.

(2) No common shares were repurchased under this NCIB.

Preferred shares

CIBC is authorized to issue an unlimited number of Class A Preferred Shares and Class B Preferred Shares without nominal or par value, issuable in series, provided that, for each class of preferred shares, the maximum aggregate consideration for all outstanding shares, at any time does not exceed \$10 billion. There are no Class B Preferred Shares currently outstanding.

Preferred share rights and privileges

Class A Preferred Shares

Each series of Class A Preferred Shares bears quarterly non-cumulative dividends. Non-cumulative Rate Reset Class A Preferred Shares Series 39, 41, 43, 45, and 47 (NVCC) are redeemable, subject to regulatory approval if required, for cash by CIBC on or after the specified redemption dates at the cash redemption prices indicated in the terms of the preferred shares.

Non-cumulative Rate Reset Class A Preferred Shares Series 47 (NVCC) (Series 47 shares)

On January 18, 2018, we issued 18 million Non-cumulative Rate Reset Class A Preferred Shares Series 47 (NVCC) (Series 47 shares) with a par value of \$25.00 per share, for gross proceeds of \$450 million. For the initial five-year period to the earliest redemption date of January 31, 2023, the Series 47 shares pay quarterly cash dividends, if declared, at a rate of 4.50%. On January 31, 2023, and on January 31 every five years thereafter, the dividend rate will reset to be equal to the then current five-year Government of Canada bond yield plus 2.45%.

Holders of the Series 47 shares will have the right to convert their shares on a one-for-one basis into Non-cumulative Floating Rate Class A Preferred Shares Series 48 (NVCC) (Series 48 shares), subject to certain conditions, on January 31, 2023 and on January 31 every five years thereafter. Holders of the Series 48 shares will be entitled to receive a quarterly floating rate dividend, if declared, equal to the three-month Government of Canada Treasury Bill yield plus 2.45%. Holders of the Series 48 shares may convert their shares on a one-for-one basis into Series 47 shares, subject to certain conditions, on January 31, 2028 and on January 31 every five years thereafter.

Subject to regulatory approval and certain provisions of the shares, we may redeem all or any part of the then outstanding Series 47 shares at par on January 31, 2023 and on January 31 every five years thereafter; we may redeem all or any part of the then outstanding Series 48 shares at par on January 31, 2028 and on January 31 every five years thereafter.

Non-cumulative Rate Reset Class A Preferred Shares Series 45 (NVCC) (Series 45 shares)

On June 2, 2017, we issued 32 million Series 45 shares with a par value of \$25.00 per share, for gross proceeds of \$800 million. For the initial five-year period to the earliest redemption date of July 31, 2022, the Series 45 shares pay quarterly cash dividends, if declared, at a rate of 4.40%. On July 31, 2022, and on July 31 every five years thereafter, the dividend rate will reset to be equal to the then current five-year Government of Canada bond yield plus 3.38%.

Holders of the Series 45 shares will have the right to convert their shares on a one-for-one basis into Non-cumulative Floating Rate Class A Preferred Shares Series 46 (NVCC) (Series 46 shares), subject to certain conditions, on July 31, 2022 and on July 31 every five years thereafter. Holders of the Series 46 shares will be entitled to receive a quarterly floating rate dividend, if declared, equal to the three-month Government of Canada Treasury Bill yield plus 3.38%. Holders of the Series 46 shares may convert their shares on a one-for-one basis into Series 45 shares, subject to certain conditions, on July 31, 2027 and on July 31 every five years thereafter.

Subject to regulatory approval and certain provisions of the shares, we may redeem all or any part of the then outstanding Series 45 shares at par on July 31, 2022 and on July 31 every five years thereafter; we may redeem all or any part of the then outstanding Series 46 shares at par on July 31, 2027 and on July 31 every five years thereafter.

Non-cumulative Rate Reset Class A Preferred Shares Series 43 (NVCC) (Series 43 shares)

On March 11, 2015, we issued 12 million Series 43 shares with a par value of \$25.00 per share, for gross proceeds of \$300 million. For the initial five-year period to the earliest redemption date of July 31, 2020, the Series 43 shares pay quarterly cash dividends, if declared, at a rate of 3.60%. On July 31, 2020, and on July 31 every five years thereafter, the dividend rate will reset to be equal to the then current five-year Government of Canada bond yield plus 2.79%.

Holders of the Series 43 shares will have the right to convert their shares on a one-for-one basis into Non-cumulative Floating Rate Class A Preferred Shares Series 44 (NVCC) (Series 44 shares), subject to certain conditions, on July 31, 2020 and on July 31 every five years thereafter. Holders of the Series 44 shares will be entitled to receive a quarterly floating rate dividend, if declared, equal to the three-month Government of Canada Treasury Bill yield plus 2.79%. Holders of the Series 44 shares may convert their shares on a one-for-one basis into Series 43 shares, subject to certain conditions, on July 31, 2025 and on July 31 every five years thereafter.

Subject to regulatory approval and certain provisions of the shares, we may redeem all or any part of the then outstanding Series 43 shares at par on July 31, 2020 and on July 31 every five years thereafter; we may redeem all or any part of the then outstanding Series 44 shares at par on July 31, 2025 and on July 31 every five years thereafter.

Non-cumulative Rate Reset Class A Preferred Shares Series 41 (NVCC) (Series 41 shares)

On December 16, 2014, we issued 12 million Series 41 shares with a par value of \$25.00 per share, for gross proceeds of \$300 million. For the initial five-year period to the earliest redemption date of January 31, 2020, the Series 41 shares pay quarterly cash dividends, if declared, at a rate of 3.75%. On January 31, 2020, and on January 31 every five years thereafter, the dividend rate will reset to be equal to the then current five-year Government of Canada bond yield plus 2.24%.

Holders of the Series 41 shares will have the right to convert their shares on a one-for-one basis into Non-cumulative Floating Rate Class A Preferred Shares Series 42 (NVCC) (Series 42 shares), subject to certain conditions, on January 31, 2020 and on January 31 every five years thereafter. Holders of the Series 42 shares will be entitled to receive a quarterly floating rate dividend, if declared, equal to the three-month Government of Canada Treasury Bill yield plus 2.24%. Holders of the Series 42 shares may convert their shares on a one-for-one basis into Series 41 shares, subject to certain conditions, on January 31, 2025 and on January 31 every five years thereafter.

Subject to regulatory approval and certain provisions of the shares, we may redeem all or any part of the then outstanding Series 41 shares at par on January 31, 2020 and on January 31 every five years thereafter; we may redeem all or any part of the then outstanding Series 42 shares at par on January 31, 2025 and on January 31 every five years thereafter.

Non-cumulative Rate Reset Class A Preferred Shares Series 39 (NVCC) (Series 39 shares)

On June 11, 2014, we issued 16 million Series 39 shares with a par value of \$25.00 per share, for gross proceeds of \$400 million. For the initial five-year period to the earliest redemption date of July 31, 2019, the Series 39 shares pay quarterly cash dividends, if declared, at a rate of 3.90%. On July 31, 2019, and on July 31 every five years thereafter, the dividend rate will reset to be equal to the then current five-year Government of Canada bond yield plus 2.32%.

Holders of the Series 39 shares will have the right to convert their shares on a one-for-one basis into Non-cumulative Floating Rate Class A Preferred Shares Series 40 (NVCC) (Series 40 shares), subject to certain conditions, on July 31, 2019 and on July 31 every five years thereafter. Holders of the Series 40 shares will be entitled to receive a quarterly floating rate dividend, if declared, equal to the three-month Government of Canada Treasury Bill yield plus 2.32%. Holders of the Series 40 shares may convert their shares on a one-for-one basis into Series 39 shares, subject to certain conditions, on July 31, 2024 and on July 31 every five years thereafter.

Subject to regulatory approval and certain provisions of the shares, we may redeem all or any part of the then outstanding Series 39 shares at par on July 31, 2019, and on July 31 every five years thereafter; we may redeem all or any part of the then outstanding Series 40 shares at par on July 31, 2024, and on July 31 every five years thereafter.

Series 39, Series 40, Series 41, Series 42, Series 43, Series 44, Series 45, Series 46, Series 47, and Series 48 shares are subject to an NVCC provision, necessary for the shares to qualify as regulatory capital under Basel III. As such, the shares are automatically converted into common shares upon the occurrence of a "Trigger Event". As described in the Capital Adequacy Guidelines, a Trigger Event occurs when OSFI determines the bank is or is about to become non-viable and, if after conversion of all contingent instruments and consideration of any other relevant factors or circumstances, it is reasonably likely that its viability will be restored or maintained; or if the bank has accepted or agreed to accept a capital injection or equivalent support from a federal or provincial government, without which OSFI would have determined the bank to be non-viable. Each such share is convertible into a number of common shares, determined by dividing the par value of \$25.00 plus declared and unpaid dividends by the average common share price (as defined in the relevant prospectus supplement) subject to a minimum price of \$5.00 per share (subject to adjustment in certain events as defined in the relevant prospectus supplement). We have recorded the Series 39, Series 41, Series 43, Series 45, and Series 47 shares as equity.

Terms of Class A Preferred Shares

Outstanding as at October 31, 2018	Quarterly dividends per share ⁽¹⁾	Earliest specified redemption date	Cash redemption price per share
Series 39	\$ 0.243750	July 31, 2019	\$ 25.00
Series 41	\$ 0.234375	January 31, 2020	\$ 25.00
Series 43	\$ 0.225000	July 31, 2020	\$ 25.00
Series 45	\$ 0.275000	July 31, 2022	\$ 25.00
Series 47	\$ 0.281250	January 31, 2023	\$ 25.00

(1) Quarterly dividends may be adjusted depending on the timing of issuance or redemption.

Restrictions on the payment of dividends

Under Section 79 of the *Bank Act* (Canada), a bank, including CIBC, is prohibited from declaring or paying any dividends on its preferred or common shares if there are reasonable grounds for believing that the bank is, or the payment would cause it to be, in contravention of any capital adequacy or liquidity regulation or any direction to the bank made by OSFI.

In addition, our ability to pay common share dividends is also restricted by the terms of the outstanding preferred shares. These terms provide that we may not pay dividends on our common shares at any time without the approval of holders of the outstanding preferred shares, unless all dividends to preferred shareholders that are then payable have been declared and paid or set apart for payment.

We have agreed that if CIBC Capital Trust fails to pay any interest payments on its \$1,300 million of CIBC Tier 1 Notes – Series A, due June 30, 2108 or its \$300 million of CIBC Tier 1 Notes – Series B, due June 30, 2108, we will not declare dividends of any kind on any of our preferred or common shares for a specified period of time. For additional details see Note 16.

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

Capital

Objectives, policy and procedures

Our objective is to employ a strong and efficient capital base. We manage capital in accordance with a capital policy approved by the Board. The policy includes specific guidelines that relate to capital strength, capital mix, dividends and return of capital, and the unconsolidated capital adequacy of regulated entities and capital is monitored continuously for compliance.

Each year, a Capital Plan and three-year outlook are established as a part of the financial plan, and they encompass all material elements of capital: forecasts of sources and uses of capital including earnings, dividends, business growth, and corporate initiatives, as well as maturities, redemptions, and issuances of capital instruments. The Capital Plan is stress-tested to ensure that it is sufficiently robust under severe but plausible stress scenarios. The level of capital and capital ratios are monitored throughout the year including a comparison to the Capital Plan. There were no significant changes made to the objectives, policy, guidelines and procedures during the year.

Regulatory capital requirements under Basel III

Our regulatory capital requirements are determined in accordance with guidelines issued by OSFI, which are based on the risk-based capital standards developed by the Basel Committee on Banking Supervision (BCBS).

CIBC has been designated by OSFI as a D-SIB in Canada, and is subject to a CET1 surcharge equal to 1.0% of risk-weighted assets (RWAs). In June 2018, OSFI publicly disclosed that it requires D-SIBs to hold a Domestic Stability Buffer, currently set at 1.5% of RWAs. This results in current all-in targets, including all buffer requirements, for CET1, Tier 1 and Total capital ratios of 9.5%, 11.0%, and 13.0%, respectively. These targets may be higher for certain institutions at OSFI's discretion.

"All-in" is defined by OSFI as capital calculated to include all of the regulatory adjustments that will be required by 2019, but retaining the phase-out rules for non-qualifying capital instruments. Certain deductions from CET1 capital that were phased in at 20% per year from 2014 for the calculation of capital under the transitional rules are now fully deducted, and therefore, there is no longer a determination of transitional capital.

Regulatory capital and ratios

Regulatory capital under Basel III consists of CET1, Tier 1 and Tier 2 capital.

CET1 capital includes common shares, retained earnings, AOCI (excluding AOCI relating to cash flow hedges and changes to FVO liabilities attributable to changes in own credit risk), and qualifying instruments issued by a consolidated banking subsidiary to third parties, less regulatory adjustments for items such as goodwill and other intangible assets (net of related deferred tax liabilities), certain deferred tax assets, net assets related to defined benefit pension plans as reported on our consolidated balance sheet (net of related deferred tax liabilities), and certain investments. Additional Tier 1 (AT1) capital primarily includes NVCC preferred shares, qualifying instruments issued by a consolidated subsidiary to third parties, and non-qualifying innovative Tier 1 notes subject

to phase-out rules for capital instruments. Tier 2 capital includes NVCC subordinated indebtedness, non-qualifying subordinated indebtedness subject to phase-out rules for capital instruments, eligible collective allowance under the standardized approach, and qualifying instruments issued by a consolidated subsidiary to third parties.

Our capital ratios and leverage ratio are presented in the table below:

\$ millions, as at October 31		2018	2017
All-in basis			
CET1 capital		\$ 24,641	\$ 21,618
Tier 1 capital	C	27,908	24,682
Total capital		32,230	28,129
CET1 capital RWA ⁽¹⁾		216,144	203,321
Tier 1 capital RWA ⁽¹⁾		216,303	203,321
Total capital RWA ⁽¹⁾		216,462	203,321
CET1 ratio		11.4 %	10.6 %
Tier 1 capital ratio		12.9 %	12.1 %
Total capital ratio		14.9 %	13.8 %
Leverage ratio exposure	D	\$ 653,946	\$ 610,353
Leverage ratio	C/D	4.3 %	4.0 %

(1) Before any capital floor requirement as applicable, there are three different levels of risk-weighted assets (RWAs) for the calculation of the CET1, Tier 1, and Total capital ratios arising from the option CIBC has chosen for the phase-in of the CVA capital charge. Since the introduction of Basel II in 2008, OSFI has prescribed a capital floor requirement for institutions that use the AIRB approach for credit risk. Effective in the second quarter of 2018, the capital floor is determined by comparing a capital requirement calculated by reference to the Basel II standardized approach against the Basel III calculation, as specified by OSFI. Any shortfall in the Basel III capital requirement compared with the floor factor applied to the capital requirements under the Basel II standardized approach is added to RWAs (75% is the floor factor in the fourth quarter of 2018). Prior to the second quarter of 2018, the capital floor for banks using the AIRB approach for credit risk was determined by reference to the Basel I instead of the Basel II standardized approach calculation. All-in RWAs as at October 31, 2017 included a capital floor adjustment under this methodology.

During the years ended October 31, 2018 and 2017, we have complied with OSFI's regulatory capital requirements, including a 1.5% Domestic Stability Buffer since June 2018.

Note 16 | Capital Trust securities

On March 13, 2009, CIBC Capital Trust, a trust wholly owned by CIBC and established under the laws of the Province of Ontario, issued \$1,300 million of CIBC Tier 1 Notes – Series A, due June 30, 2108, and \$300 million of CIBC Tier 1 Notes – Series B, due June 30, 2108 (collectively, the Notes). CIBC Capital Trust is not consolidated by CIBC and the senior deposit notes issued by CIBC to CIBC Capital Trust are reported as Deposits – Business and government on the consolidated balance sheet.

The Notes are structured to achieve Tier 1 regulatory capital treatment and, as such, have features of equity capital, including the deferral of cash interest under certain circumstances (Deferral Events). In the case of a Deferral Event, holders of the Notes will be required to invest interest paid on the Notes in our perpetual preferred shares. Should CIBC Capital Trust fail to pay the semi-annual interest payments on the Notes in full, we will not declare dividends of any kind on any of our preferred or common shares for a specified period of time.

In addition, the Notes will be automatically exchanged for our perpetual preferred shares upon the occurrence of any one of the following events: (i) proceedings are commenced for our winding-up; (ii) OSFI takes control of us or our assets; (iii) we or OSFI are of the opinion that our Tier 1 capital ratio is less than 5% or our Total capital ratio is less than 8%; or (iv) OSFI directs us pursuant to the *Bank Act* (Canada) to increase our capital or provide additional liquidity and we elect such automatic exchange or we fail to comply with such direction. Upon such automatic exchange, holders of the Notes will cease to have any claim or entitlement to interest or principal against CIBC Capital Trust.

CIBC Tier 1 Notes – Series A pays interest, at a rate of 9.976%, semi-annually until June 30, 2019. On June 30, 2019, and on each five-year anniversary thereafter, the interest rate on the CIBC Tier 1 Notes – Series A will reset to the five-year Government of Canada bond yield at such time plus 10.425%. CIBC Tier 1 Notes – Series B pays interest, at a rate of 10.25%, semi-annually until June 30, 2039. On June 30, 2039, and on each five-year anniversary thereafter, the interest rate on the CIBC Tier 1 Notes – Series B will reset to the five-year Government of Canada bond yield at such time plus 9.878%.

Subject to the approval of OSFI, CIBC Capital Trust may, in whole or in part, on the redemption dates specified in the table below, and on any date thereafter, redeem the CIBC Tier 1 Notes – Series A or Series B without the consent of the holders. Also, subject to the approval of OSFI, CIBC Capital Trust may redeem all, but not part of, the CIBC Tier 1 Notes – Series A or Series B prior to the earliest redemption date specified in the table below without the consent of the holders, upon the occurrence of certain specified tax or regulatory events.

OSFI's capital adequacy guidelines confirmed the adoption of Basel III in Canada and clarified the treatment of non-qualifying capital instruments. Non-qualifying capital instruments are subject to a 10% phase-out per annum commencing in 2013. Banks are expected to develop and maintain a redemption schedule for non-qualifying capital instruments that gives priority to redeeming instruments at their regular par redemption dates before exercising any regulatory event redemption rights. With the adoption of Basel III, innovative capital instruments such as the CIBC Tier 1 Notes are considered non-qualifying capital instruments. We expect to exercise our regulatory event redemption rights in fiscal 2022 in respect of the \$300 million CIBC Tier 1 Notes – Series B.

The table below presents the significant terms and conditions of the Notes. As at October 31, 2018, we held \$8 million in net long trading positions (2017: \$2 million in net short trading positions) of the Notes.

\$ millions, as at October 31		2018	2017				
				Earliest redemption dates		Principal amount	
				At greater of Canada Yield Price and par ⁽¹⁾	At par		
	Issue date	Interest payment dates	Yield				
Series A	March 13, 2009	June 30, December 31	9.976 %	June 30, 2014	June 30, 2019	\$ 1,300	\$ 1,300
Series B	March 13, 2009	June 30, December 31	10.250 %	June 30, 2014	June 30, 2039	300	300
						\$ 1,600	\$ 1,600

(1) Canada Yield Price: a price calculated at the time of redemption (other than an interest rate reset date applicable to the series) to provide a yield to maturity equal to the yield on a Government of Canada bond of appropriate maturity plus: (i) for the CIBC Tier 1 Notes – Series A, (a) 1.735% if the redemption date is any time prior to June 30, 2019, or (b) 3.475% if the redemption date is any time on or after June 30, 2019; and (ii) for the CIBC Tier 1 Notes – Series B, (a) 1.645% if the redemption date is any time prior to June 30, 2039, or (b) 3.29% if the redemption date is any time on or after June 30, 2039.

Note 17 | Share-based payments

We provide the following share-based compensation to certain employees and directors in the form of cash-settled or equity-settled awards.

Restricted share award plan

Under the RSA plan, share unit equivalents (RSA units) are granted to certain key employees on an annual basis or during the year as special grants. RSA grants are made in the form of cash-settled awards which generally vest and settle in cash either at the end of three years or one-third annually beginning one year after the date of the grant. Dividend equivalents on RSA units are paid in cash or in the form of additional RSA units to the employees over or at the end of the vesting period or settlement date.

Grant date fair value of each cash-settled RSA unit granted in the normal course is calculated based on the average closing price per common share on the TSX for the 10 trading days prior to a date specified in the grant terms. Upon vesting, each RSA unit is settled in cash based on the average closing price per common share on the TSX for the 10 trading days prior to the vesting date. Grant date fair value of each cash-settled RSA unit granted as part of the acquisition of The PrivateBank in 2017 was based on a 10-day average volume-weighted share price prior to the acquisition date.

During the year, 2,653,437 RSAs were granted at a weighted-average price of \$115.20 (2017: 4,331,700 granted at a weighted-average price of \$105.67; 2016: 2,320,497 granted at a weighted-average price of \$99.99) and the number of RSAs outstanding as at October 31, 2018 was 8,252,167 (2017: 7,590,852; 2016: 5,422,030). Compensation expense in respect of RSAs, before the impact of hedging, totalled \$352 million in 2018 (2017: \$323 million; 2016: \$218 million). As at October 31, 2018, liabilities in respect of RSAs, which are included in Other liabilities, were \$858 million (2017: \$720 million).

Performance share unit plan

Under the PSU plan, awards are granted to certain key employees on an annual basis in December. PSU grants are made in the form of cash-settled awards which vest and settle in cash at the end of three years. Dividend equivalents on PSUs granted prior to December 2015 are paid in cash to the employees over the vesting period. For PSUs granted in December 2015 and later, employees receive dividend equivalents in the form of additional PSUs.

Grant date fair value of each cash-settled PSU is calculated based on the average closing price per common share on the TSX for the 10 trading days prior to a date specified in the grant terms. The final number of PSUs that vest will range from 75% to 125% of the initial number awarded based on CIBC's performance relative to the other major Canadian banks. Upon vesting, each PSU is settled in cash based on the average closing price per common share on the TSX for the 10 trading days prior to the vesting date.

During the year, 894,040 PSUs were granted at a weighted-average price of \$115.23 (2017: 952,434 granted at a weighted-average price of \$105.15; 2016: 905,028 granted at a weighted-average price of \$99.86). As at October 31, 2018, the number of PSUs outstanding, before the impact of CIBC's relative performance, was 2,920,695 (2017: 2,651,991; 2016: 2,507,808). Compensation expense in respect of PSUs, before the impact of hedging, totalled \$123 million in 2018 (2017: \$128 million; 2016: \$93 million). As at October 31, 2018, liabilities in respect of PSUs, which are included in Other liabilities, were \$328 million (2017: \$287 million).

Restricted stock plan

As part of the acquisition of The PrivateBank in 2017, CIBC restricted stock was issued to replace previously issued PrivateBancorp restricted stock held by employees of The PrivateBank with substantially the same terms and vesting schedule. Under the restricted stock plan, awards were granted to certain key employees in the form of equity-settled awards. Pursuant to the acquisition, each restricted stock represents a CIBC common share with transferability restriction. The common shares are not restricted to voting rights, but dividends are subject to forfeiture under the terms of the grant. Dividends are payable in cash and are distributed to the holders to the extent and at the same time the underlying shares vest and are released from restriction. The transfer restrictions generally vest over a three-year period and vesting is contingent upon continued employment. At the acquisition date, restricted stock was granted at a 10-day average volume-weighted share price of US\$80.09 and the number of restricted stock outstanding as at October 31, 2018 was 60,764 (2017: 190,285). Compensation expense in respect of restricted stock totalled \$4 million in 2018 (2017: \$2 million).

Exchangeable shares

As part of our acquisition of Wellington Financial in the first quarter of 2018, equity-settled awards in the form of exchangeable shares, which vest over a period of up to 5 years and have specific service and non-market performance vesting conditions, were issued to selected employees. Employees receive dividend equivalents in the form of additional exchangeable shares upon vesting. Compensation expense in respect of the exchangeable shares is based on the grant date fair value, adjusted for the impact of best estimates on the satisfaction of the service requirements and non-market performance conditions. At the acquisition, each exchangeable share was granted at \$123.99, and the number of exchangeable shares outstanding as at October 31, 2018 was 493,310. Compensation expense in respect of exchangeable shares totalled \$20 million in 2018.

Deferred share unit plan/deferred compensation plan

Under the DSU plan, certain key employees are granted DSUs during the year as special grants. Under the DSU plan and the DCP plan assumed through the acquisition of The PrivateBank in 2017, certain employees can also elect to receive DSUs in exchange for cash compensation that they would otherwise be entitled to. DSUs vest in accordance with the vesting schedule defined in the grant agreement or plan document and settle in cash on a date elected by the employee that is not less than two years after the deferral commitment, or after the employee leaves CIBC in a lump sum payment or up to 10 annual installments. Employees receive dividend equivalents in the form of additional DSUs.

Grant date fair value of each cash-settled DSU that is not granted under the DCP, is calculated based on the average closing price per common share on the TSX for the 10 trading days prior to a date specified in the grant terms. These DSUs are settled in cash based on the average closing price per common share on the TSX for the 10 trading days prior to the payout date and after the employee's termination of employment. For the DCP plan, the grant date fair value for units issued as part of the acquisition of The PrivateBank in 2017 was based on a 10-day average volume-weighted share price prior to the acquisition date. The grant date fair value for subsequent DCP grants is based on the closing stock price on the New York Stock Exchange (NYSE) on the last day of the quarter. Upon distribution, each DSU is settled in cash based on the average closing price per common share on the NYSE for the 10 trading days prior to the date of the distribution.

During the year, 132,739 DSUs were granted at a weighted-average price of \$115.60 (2017: 198,301 granted at a weighted-average price of \$106.21; 2016: 14,326 granted at a weighted-average price of \$99.86) and the number of DSUs outstanding as at October 31, 2018 was 447,200 (2017: 248,032; 2016: 45,410). Compensation expense in respect of DSUs, before the impact of hedging, totalled \$26 million in 2018 (2017: \$20 million; 2016: \$9 million). As at October 31, 2018, liabilities in respect of DSUs, which are included in Other liabilities, were \$64 million (2017: \$42 million).

Directors' plans

Under the Director DSU/Common Share Election Plan, each director who is not an officer or employee of CIBC may elect to receive the annual equity retainer as either DSUs or common shares.

Under the Non-Officer Director Share Plan, each non-officer director may elect to receive all or a portion of their remuneration in the form of cash, common shares or DSUs.

The value of DSUs credited to a director is payable when he or she is no longer a director or employee of CIBC or of an affiliate of CIBC. In addition, for directors subject to section 409A of the U.S. Internal Revenue Code of 1986, as amended, the director is not providing any services to CIBC or any member of its controlled group as an independent contractor. In addition, under the Director DSU/Common Share Election Plan, the value of DSUs is payable only if the director is not related to, or affiliated with, CIBC as defined in the *Income Tax Act* (Canada).

Other non-interest expense in respect of the DSU components of these plans, totalled \$3 million in 2018 (2017: \$5 million; 2016: \$2 million). As at October 31, 2018, liabilities in respect of DSUs, which are included in Other liabilities, were \$25 million (2017: \$22 million).

Stock option plans

At the April 2018 Annual Meeting, CIBC received shareholder approval to increase the number of common shares reserved for issuance by 10,000,000 common shares to a maximum of 52,634,500 common shares under the ESOP. In addition, in 2017, 1,119,211 common shares were reserved for issue pursuant to the terms in the merger agreement of the acquisition of The PrivateBank, which specified that each PrivateBancorp outstanding and unexercised option was converted into an option to purchase CIBC shares.

On November 30, 2017, the Board terminated the Non-Officer Director Stock Option Plan.

As at October 31, 2018, 15,703,861 (2017: 6,654,170) common shares were reserved for future issue under our stock option plans. Stock options in respect of 4,713,163 (2017: 4,876,673) common shares have been granted but not yet exercised under the ESOP. 10,990,698 (2017: 1,777,497) common shares remain available for future stock option grants.

Under the ESOP, stock options are periodically granted to certain key employees. Options provide the employee with the right to purchase common shares from CIBC at a fixed price not less than the closing price of the shares on the trading day immediately preceding the grant date. In general, the options vest by the end of the fourth year and expire 10 years from the grant date.

The fair value of options granted during the year were measured at the grant date using the Black-Scholes option pricing model. Model assumptions are based on observable market data for the risk-free interest rate and dividend yield; contractual terms for the exercise price; and historical experience for expected life. Volatility assumptions are best estimates of market implied volatility matching the exercise price and expected life of the options.

The fair value of in-the-money options granted as part of the acquisition of The PrivateBank in 2017 approximated their intrinsic value.

The following weighted-average assumptions were used as inputs into the Black-Scholes option pricing model to determine the fair value of options on the date of grant, excluding the options granted pursuant to the acquisition of The PrivateBank:

For the year ended October 31	2018	2017	2016
Weighted-average assumptions			
Risk-free interest rate	2.08 %	1.58 %	1.34 %
Expected dividend yield	5.15 %	5.75 %	6.14 %
Expected share price volatility	14.74 %	14.53 %	17.26 %
Expected life	6 years	6 years	6 years
Share price/exercise price	\$ 120.02	\$ 110.83	\$ 97.73

For 2018, the weighted-average grant date fair value of options, was \$7.06 (2017: \$5.31; 2016: \$5.12). The weighted-average grant date fair value of options granted pursuant to the acquisition of The PrivateBank was \$63.75 in 2017.

Compensation expense in respect of stock options totalled \$7 million in 2018 (2017: \$5 million; 2016: \$5 million).

Stock option plans

As at or for the year ended October 31	2018		2017		2016	
	Number of stock options	Weighted-average exercise price ⁽¹⁾	Number of stock options	Weighted-average exercise price	Number of stock options	Weighted-average exercise price
Outstanding at beginning of year	4,876,673	\$ 84.28	4,073,451	\$ 86.92	4,100,310	\$ 82.62
Granted	756,516	120.02	1,935,997	75.83	804,923	97.73
Exercised ⁽²⁾	(876,309)	67.84	(990,934)	76.78	(815,767)	75.86
Forfeited	(42,443)	103.98	(133,581)	99.77	(13,380)	91.99
Cancelled/expired	(1,274)	45.08	(8,260)	58.99	(2,635)	87.36
Outstanding at end of year	4,713,163	\$ 91.05	4,876,673	\$ 84.28	4,073,451	\$ 86.92
Exercisable at end of year	1,898,125	\$ 71.89	1,988,449	\$ 64.28	1,485,607	\$ 74.94
Available for grant	10,990,698		1,777,497		2,452,442	

(1) For foreign currency-denominated options granted and exercised during the year, the weighted-average exercise prices are translated using exchange rates as at the grant date and settlement date, respectively. The weighted-average exercise price of outstanding balances as at October 31, 2018 reflects the conversion of foreign currency-denominated options at the year-end exchange rate.

(2) The weighted-average share price at the date of exercise was \$120.55 (2017: \$110.44; 2016: \$99.66).

Stock options outstanding and vested

As at October 31, 2018

Range of exercise prices	Stock options outstanding			Stock options vested	
	Number outstanding	Weighted-average contractual life remaining	Weighted-average exercise price	Number outstanding	Weighted-average exercise price
\$11.00 – \$55.00	406,223	3.53	\$ 30.99	406,223	\$ 30.99
\$55.01 – \$65.00	256,369	6.81	60.09	112,313	61.06
\$65.01 – \$75.00	309,799	2.41	71.21	308,942	71.22
\$75.01 – \$85.00	449,095	3.68	79.77	448,600	79.77
\$85.01 – \$95.00	401,117	5.28	90.92	383,443	90.86
\$95.01 – \$105.00	1,231,988	6.66	99.63	238,604	102.25
\$105.01 – \$115.00	1,658,572	8.59	114.95	–	–
	4,713,163	6.40	\$ 92.45	1,898,125	\$ 71.89

Employee share purchase plan

Under our Canadian ESPP, qualifying employees can choose each year to have any portion of their eligible earnings withheld to purchase common shares. We match 50% of the employee contribution amount, up to a maximum contribution of 3% of eligible earnings, subject to a ceiling of \$2,250 annually. CIBC contributions vest after employees have two years of continuous participation in the plan, and all subsequent contributions vest immediately. Similar programs exist in other regions globally, where each year qualifying employees can choose to have a portion of their eligible earnings withheld to purchase common shares and receive a matching employer contribution subject to each plan's provisions. Commencing June 29, 2016, employee contributions to our ESPP have been used to purchase common shares from Treasury. Previously, these shares were acquired in the open market. CIBC FirstCaribbean operates an ESPP locally, in which contributions are used by the plan trustee to purchase CIBC FirstCaribbean common shares in the open market.

Our contributions are expensed as incurred and totalled \$45 million in 2018 (2017: \$43 million; 2016: \$40 million).

Note 18 | Post-employment benefits

We sponsor pension and other post-employment benefit plans for eligible employees in a number of jurisdictions including Canada, the U.S., the U.K., and the Caribbean. Our pension plans include registered funded defined benefit pension plans, supplemental arrangements that provide pension benefits in excess of statutory limits, and defined contribution plans. We also provide certain health-care, life insurance, and other benefits to eligible employees and retired members. Plan assets and defined benefit obligations related to our defined benefit plans are measured for accounting purposes as at October 31 each year.

Plan characteristics, funding and risks

Pension plans

Pension plans include CIBC's Canadian, U.S., U.K., and Caribbean pension plans. CIBC's Canadian pension plans represent approximately 90% of our consolidated defined benefit obligation. All of our Canadian pension plans are defined benefit plans, the most significant of which is our principal Canadian pension plan (the CIBC Pension Plan), which encompasses approximately 63,000 active, deferred, and retired members.

The CIBC Pension Plan provides members with monthly pension income at retirement based on a prescribed plan formula which is based on a combination of maximum yearly pensionable earnings, average earnings at retirement and length of service recognized in the plan. There is a two-year waiting period for members to join the CIBC Pension Plan.

The CIBC Pension Plan is funded through a separate trust. Actuarial funding valuations are prepared by the Plan's external actuary at least once every three years or more frequently as required by Canadian pension legislation to determine CIBC's minimum funding requirements as well as maximum permitted contributions. Any deficits determined in the funding valuations must generally be funded over a period not exceeding fifteen years. CIBC's pension funding policy is to make at least the minimum annual required contributions required by regulations; any contributions in excess of the minimum requirements are discretionary.

The CIBC Pension Plan is registered with OSFI and the Canada Revenue Agency and is subject to the acts and regulations that govern federally regulated pension plans.

Other post-employment plans

Other post-employment plans include CIBC's Canadian, U.S. and Caribbean post-retirement health-care benefit plans (referred to for disclosure purposes as other post-employment plans). CIBC's Canadian other post-employment plan (the Canadian post-employment plan) represents more than 90% of our consolidated other post-employment defined benefit obligation.

The Canadian post-employment plan provides medical, dental and life insurance benefits to retirees that meet specified eligibility requirements, including specified age and service period eligibility requirements. CIBC reimburses 100% of the cost of benefits for eligible employees that retired prior to January 1, 2009, whereas the contribution level for medical and dental benefits for eligible employees that retire subsequent to this date has been fixed at a specified level. The plan is funded on a pay-as-you-go basis.

Benefit changes

There were no material changes to the terms of our defined benefit pension or other post-employment plans in 2018 or 2017.

Risks

CIBC's defined benefit plans expose the group to actuarial risks (such as longevity risk), currency risk, interest rate risk, market (investment) risk and health-care cost inflation risks.

The CIBC pension plan operates a currency overlay strategy, which may use forwards or similar instruments, to manage and mitigate its currency risk. Interest rate risk is managed as part of the CIBC pension plan's liability driven investment strategy through a combination of physical bonds, overlays funded in the repo market, and/or derivatives.

Market (investment) risk is mitigated through a multi-asset portfolio construction process that diversifies across a variety of market risk drivers.

The use of derivatives within the CIBC pension plan is governed by its derivatives policy that was approved by the Pension Benefits Management Committee (PBMC) and permits the use of derivatives to manage risk at the discretion of the Pension Investment Committee (PIC). Risk reduction and mitigation strategies, in addition to interest rate risk, may include hedging of currency, credit spread and/or equity risks. The derivatives policy also permits the use of derivatives to enhance plan returns.

Plan governance

All of CIBC's pension arrangements are governed by local pension committees, senior management or a board of trustees; however, all significant plan changes require approval from the Management Resources and Compensation Committee (MRCC). For the Canadian pension plans, the MRCC is also responsible for the establishment of the investment policies (such as asset mix, permitted investments, and use of derivatives), reviewing performance including funded status, and approving material plan design or governance changes.

While specific investment policies are determined at a plan level to reflect the unique characteristics of each plan, common investment policies for all plans include the optimization of the risk-return relationship using a portfolio of multiple asset classes diversified by market segment, economic sector, and issuer. The objectives are to secure the benefits promised by our funded plans, to maximize long-term investment returns while not compromising the benefit security of the respective plans, manage the level of funding contributions in conjunction with the stability of the funded status, and implement all policies in a cost effective manner. Investments in quoted debt and equity (held either directly or indirectly through investment funds) represent the most significant asset allocations.

The use of derivatives is limited to the purposes and instruments described in the derivatives policy of the CIBC Pension Plan. These include the synthetic return of debt or equity instruments, currency hedging, risk reduction and enhancement of returns.

Investments in specific asset classes are further diversified across funds, managers, strategies, sectors and geographies, depending on the specific characteristics of each asset class.

The exposure to any one of these asset classes will be determined by our assessment of the needs of the plan assets and economic and financial market conditions. Factors evaluated before adopting the asset mix include demographics, cash-flow payout requirements, liquidity requirements, actuarial assumptions, expected benefit increases, and corporate cash flows.

Management of the assets of the various Canadian plans has been delegated primarily to the PIC, which is a committee that is composed of CIBC management. The PIC is responsible for the appointment and termination of individual investment managers (which includes CIBC Asset Management Inc., a wholly owned subsidiary of CIBC), who each have investment discretion within established target asset mix ranges as set by the MRCC. Should a fund's actual asset mix fall outside specified ranges, the assets are re-balanced as required to be within the target asset mix ranges. On a periodic basis, an Asset-Liability Matching study is performed in which the consequences of the strategic investment policies are analyzed.

Management of the actuarial valuations of the various Canadian plans is primarily the responsibility of the Pension Finance & Administration Committee (PFAC). The PFAC is responsible for approving the actuarial assumptions for the valuations of the plans, and for recommending the level of annual funding for the Canadian plans to CIBC senior management.

Local committees with similar mandates manage our non-Canadian plans and annually report back to the MRCC on all material governance activities.

Amounts recognized on the consolidated balance sheet

The following tables present the financial position of our defined benefit pension and other post-employment plans for Canada, the U.S., the U.K., and our Caribbean subsidiaries. Other minor plans operated by some of our subsidiaries are not material and are not included in these disclosures.

\$ millions, as at or for the year ended October 31	Pension plans		Other post-employment plans	
	2018	2017	2018	2017
Defined benefit obligation				
Balance at beginning of year	\$ 7,613	\$ 7,418	\$ 696	\$ 725
Current service cost	223	214	13	14
Past service cost	—	(5)	—	—
Interest cost on defined benefit obligation	281	272	25	25
Employee contributions	5	6	—	—
Benefits paid	(334)	(350)	(29)	(30)
Special termination benefits	—	2	—	—
Foreign exchange rate changes	9	(15)	1	(2)
Net actuarial (gains) losses on defined benefit obligation	(427)	71	(117)	(36)
Balance at end of year	\$ 7,370	\$ 7,613	\$ 589	\$ 696
Plan assets				
Fair value at beginning of year	\$ 7,758	\$ 7,458	\$ —	\$ —
Interest income on plan assets ⁽¹⁾	294	279	—	—
Net actuarial gains (losses) on plan assets ⁽¹⁾	(234)	221	—	—
Employer contributions	199	167	29	30
Employee contributions	5	6	—	—
Benefits paid	(334)	(350)	(29)	(30)
Plan administration costs	(6)	(6)	—	—
Net transfer out	(1)	(1)	—	—
Foreign exchange rate changes	10	(16)	—	—
Fair value at end of year	\$ 7,691	\$ 7,758	\$ —	\$ —
Net defined benefit asset (liability)	321	145	(589)	(696)
Valuation allowance ⁽²⁾	(10)	(11)	—	—
Net defined benefit asset (liability), net of valuation allowance	\$ 311	\$ 134	\$ (589)	\$ (696)

(1) The actual return on plan assets for the year was \$60 million (2017: \$500 million).

(2) The valuation allowance reflects the effect of asset ceiling on plans with a net defined benefit asset.

The net defined benefit asset (liability), net of valuation allowance, included in other assets and other liabilities is as follows:

\$ millions, as at October 31	Pension plans		Other post-employment plans	
	2018	2017	2018	2017
Other assets ⁽¹⁾	\$ 361	\$ 199	\$ –	\$ –
Other liabilities ⁽¹⁾	(50)	(65)	(589)	(696)
	\$ 311	\$ 134	\$ (589)	\$ (696)

(1) Excludes \$1 million of other assets (2017: \$1 million) and \$6 million (2017: \$5 million) of other liabilities for other post-employment plans of immaterial subsidiaries.

The defined benefit obligation and plan assets by region are as follows:

\$ millions, as at October 31	Pension plans		Other post-employment plans	
	2018	2017	2018	2017
Defined benefit obligation				
Canada	\$ 6,684	\$ 6,932	\$ 541	\$ 646
U.S., U.K., and the Caribbean	686	681	48	50
Defined benefit obligation at the end of year	\$ 7,370	\$ 7,613	\$ 589	\$ 696
Plan assets				
Canada	\$ 6,908	\$ 6,971	\$ –	\$ –
U.S., U.K., and the Caribbean	783	787	–	–
Plan assets at the end of year	\$ 7,691	\$ 7,758	\$ –	\$ –

Amounts recognized in the consolidated statement of income

The net defined benefit expense for our defined benefit plans in Canada, the U.S., the U.K., and the Caribbean is as follows:

\$ millions, for the year ended October 31	Pension plans			Other post-employment plans		
	2018	2017	2016	2018	2017	2016
Current service cost ⁽¹⁾	\$ 223	\$ 214	\$ 185	\$ 13	\$ 14	\$ 11
Past service cost	–	(5)	(8)	–	–	2
Interest cost on defined benefit obligation	281	272	292	25	25	28
Interest income on plan assets	(294)	(279)	(319)	–	–	–
Interest cost on effect of asset ceiling	–	1	1	–	–	–
Plan administration costs	6	6	6	–	–	–
Gain on settlements	–	–	–	–	–	–
Special termination benefits	–	2	3	–	–	–
Net defined benefit plan expense recognized in net income	\$ 216	\$ 211	\$ 160	\$ 38	\$ 39	\$ 41

(1) The 2018, 2017 and 2016 current service costs were calculated using separate discount rates of 3.72%, 3.72%, and 4.57%, respectively, to reflect the longer duration of future benefits payments associated with the additional year of service to be earned by the plan's active participants. Previously, the current service cost was calculated using the same discount rate used to measure the defined benefit obligation for both active and retired participants. The impact of the change was not significant.

Amounts recognized in the consolidated statement of comprehensive income

The net remeasurement gains (losses) recognized in OCI for our defined benefit plans in Canada, the U.S., the U.K., and the Caribbean is as follows:

\$ millions, for the year ended October 31	Pension plans			Other post-employment plans		
	2018	2017	2016	2018	2017	2016
Actuarial gains (losses) on defined benefit obligation arising from:						
Demographic assumptions	\$ 4	\$ 1	\$ 2	\$ 46	\$ 26	\$ –
Financial assumptions	488	19	(730)	67	5	(70)
Experience assumptions	(65)	(91)	(6)	4	5	10
Net actuarial gains on plan assets	(234)	221	237	–	–	–
Changes in asset ceiling excluding interest income	1	8	1	–	–	–
Net remeasurement gains (losses) recognized in OCI ⁽¹⁾	\$ 194	\$ 158	\$ (496)	\$ 117	\$ 36	\$ (60)

(1) Excludes net remeasurement gains recognized in OCI in respect of immaterial subsidiaries not included in the disclosures totalling \$2 million (2017: \$1 million of net losses; 2016: \$17 million of net gains).

Canadian defined benefit plans

As the Canadian defined benefit pension and other post-employment benefit plans represent approximately 90% of our consolidated defined benefit obligation, they are the subject and focus of the disclosures in the balance of this note.

Disaggregation and maturity profile of defined benefit obligation

The breakdown of the defined benefit obligation for our Canadian plans between active, deferred and retired members is as follows:

\$ millions, as at October 31	Pension plans		Other post-employment plans	
	2018	2017	2018	2017
Active members	\$ 3,482	\$ 3,755	\$ 142	\$ 188
Deferred members	484	490	–	–
Retired members	2,718	2,687	399	458
Total	\$ 6,684	\$ 6,932	\$ 541	\$ 646

The weighted-average duration of the defined benefit obligation for our Canadian plans is as follows:

As at October 31	Pension plans		Other post-employment plans	
	2018	2017	2018	2017
Weighted-average duration, in years	15.5	15.6	12.6	13.8

Plan assets

The major categories of our defined benefit pension plan assets for our Canadian plans are as follows:

\$ millions, as at October 31	2018		2017	
Asset category ⁽¹⁾				
Canadian equity securities ⁽²⁾	\$ 636	9 %	\$ 750	11 %
Debt securities ⁽³⁾				
Government bonds ⁽⁴⁾	2,636	38	2,249	32
Corporate bonds	1,027	15	865	12
Inflation adjusted bonds	69	1	346	5
	3,732	54	3,460	49
Investment funds ⁽⁵⁾				
Canadian equity funds	23	–	27	1
U.S. equity funds	342	5	293	4
International equity funds ⁽⁶⁾	25	–	26	1
Global equity funds ⁽⁶⁾	1,077	16	1,033	15
Emerging markets equity funds	247	4	257	4
Fixed income funds	93	1	146	2
	1,807	26	1,782	27
Other ⁽²⁾				
Hedge funds	10	–	435	6
Infrastructure and private equity	507	7	356	5
Cash and cash equivalents and other	216	4	188	2
	733	11	979	13
	\$ 6,908	100 %	\$ 6,971	100 %

(1) Asset categories are based upon risk classification including synthetic exposure through derivatives. The fair value of derivatives as at October 31, 2018 was a net derivative liability of \$7 million (2017: net derivative liability of \$63 million).

(2) Pension benefit plan assets include CIBC issued securities and deposits of \$13 million (2017: \$18 million), representing 0.2% of Canadian plan assets (2017: 0.3%). All of the equity securities held as at October 31, 2018 and 2017 have daily quoted prices in active markets except hedge funds, infrastructure, and private equity.

(3) All debt securities held as at October 31, 2018 and 2017 are investment grade, of which \$38 million (2017: \$134 million) have daily quoted prices in active markets.

(4) Includes repurchase agreement amounts of \$100 million for the currency overlay hedging program.

(5) \$24 million (2017: \$26 million) of the investment funds and other assets held as at October 31, 2018 have daily quoted prices in active markets (excludes securities held indirectly that have daily quoted prices in active markets).

(6) Global equity funds include North American and international investments, whereas International equity funds do not include North American investments.

Principal actuarial assumptions

The weighted-average principal assumptions used to determine the defined benefit obligation for our Canadian plans are as follows:

As at October 31	Pension plans		Other post-employment plans	
	2018	2017	2018	2017
Discount rate	4.1 %	3.6 %	4.0 %	3.6 %
Rate of compensation increase ⁽¹⁾	2.3 %	2.3 %	2.3 %	2.3 %

(1) Rates of compensation increase for 2018 and 2017 have been updated to reflect the use of a salary growth rate assumption table that is based on the age and tenure of the employees. The table yields a weighted-average salary growth rate of approximately 2.3% per annum.

Assumptions regarding future mortality have been based on published statistics and mortality tables. The current longevity underlying the values of the defined benefit obligation of our Canadian plans are as follows (in years):

As at October 31	2018	2017
Longevity at age 65 for current retired members		
Males	23.3	23.2
Females	24.7	24.7
Longevity at age 65 for current members aged 45		
Males	24.2	24.2
Females	25.7	25.7

The assumed health-care cost trend rates of the Canadian other post-employment plan providing medical, dental, and life insurance benefits are as follows:

For the year ended October 31	2018	2017
Health-care cost trend rates assumed for next year	5.3 %	5.7 %
Rate to which the cost trend rate is assumed to decline	4.0 %	4.5 %
Year that the rate reaches the ultimate trend rate	2040	2029

Sensitivity analysis

Reasonably possible changes to one of the principal actuarial assumptions, holding other assumptions constant, would have affected the defined benefit obligation of our Canadian plans as follows:

Estimated increase (decrease) in defined benefit obligation \$ millions, as at October 31	Pension plans	Other post-employment plans
	2018	2018
Discount rate (100 basis point change)		
Decrease in assumption	\$ 1,061	\$ 81
Increase in assumption	(874)	(65)
Rate of compensation increase (100 basis point change)		
Decrease in assumption	(201)	(1)
Increase in assumption	227	1
Health-care cost trend rates (100 basis point change)		
Decrease in assumption	n/a	(22)
Increase in assumption	n/a	26
Future mortality		
1 year shorter life expectancy	(156)	(10)
1 year longer life expectancy	152	11

n/a Not applicable.

The sensitivity analyses presented above are indicative only, and should be considered with caution as they have been calculated in isolation without changing any other assumptions. In practice, changes in one assumption may result in changes in another, which may magnify or counteract the disclosed sensitivities.

Future cash flows

Cash contributions

The most recently completed actuarial valuation of the CIBC Pension Plan for funding purposes was as at October 31, 2017. The next actuarial valuation of this plan for funding purposes will be effective as of October 31, 2018.

The minimum contributions for 2019 are anticipated to be \$194 million for the Canadian defined benefit pension plans and \$27 million for the Canadian other post-employment benefit plans. These estimates are subject to change since contributions are affected by various factors, such as market performance, regulatory requirements, and management's ability to change funding policy.

Expected future benefit payments

The expected future benefit payments for our Canadian plans for the next 10 years are as follows:

\$ millions, for the year ended October 31	2019	2020	2021	2022	2023	2024–2028	Total
Defined benefit pension plans	\$ 310	\$ 317	\$ 325	\$ 334	\$ 343	\$ 1,854	\$ 3,483
Other post-employment plans	27	28	29	30	31	169	314
	\$ 337	\$ 345	\$ 354	\$ 364	\$ 374	\$ 2,023	\$ 3,797

Defined contributions and other plans

We also maintain defined contribution plans for certain employees and make contributions to government pension plans. The expense recognized in the consolidated statement of income for these benefit plans is as follows:

\$ millions, for the year ended October 31	2018	2017	2016
Defined contribution pension plans	\$ 27	\$ 21	\$ 20
Government pension plans ⁽¹⁾	124	107	96
	\$ 151	\$ 128	\$ 116

(1) Includes Canada Pension Plan, Quebec Pension Plan, and U.S. Federal Insurance Contributions Act.

Note 19 | Income taxes

Total income taxes

\$ millions, for the year ended October 31	2018 ⁽¹⁾	2017	2016
Consolidated statement of income			
Provision for current income taxes			
Adjustments for prior years	\$ (39)	\$ (19)	\$ (44)
Current income tax expense	1,392	1,160	782
	1,353	1,141	738
Provision for deferred income taxes			
Adjustments for prior years	32	6	13
Effect of changes in tax rates and laws	87	3	(11)
Origination and reversal of temporary differences	(50)	12	(22)
	69	21	(20)
	1,422	1,162	718
OCI	42	166	(263)
Total comprehensive income	\$ 1,464	\$ 1,328	\$ 455

(1) Excludes loss carryforwards that were recognized directly in retained earnings relating to foreign exchange translation amounts on CIBC's net investment in foreign operations. These amounts were previously reclassified to retained earnings as part of our transition to IFRS in 2012.

Components of income tax

\$ millions, for the year ended October 31	2018	2017	2016
Current income taxes			
Federal	\$ 686	\$ 683	\$ 394
Provincial	467	451	259
Foreign	188	127	45
	1,341	1,261	698
Deferred income taxes			
Federal	54	52	(129)
Provincial	36	33	(89)
Foreign	33	(18)	(25)
	123	67	(243)
	\$ 1,464	\$ 1,328	\$ 455

The combined Canadian federal and provincial income tax rate varies each year according to changes in the statutory rates imposed by each of these jurisdictions, and according to changes in the proportion of our business carried out in each province. We are also subject to Canadian taxation on income of foreign branches.

Earnings of foreign subsidiaries would generally only be subject to Canadian tax when distributed to Canada. Additional Canadian taxes that would be payable if all foreign subsidiaries' retained earnings were distributed to the Canadian parent as dividends are estimated to be nil.

The effective rates of income tax in the consolidated statement of income are different from the combined Canadian federal and provincial income tax rates as set out in the following table:

Reconciliation of income taxes

\$ millions, for the year ended October 31	2018		2017		2016	
Combined Canadian federal and provincial income tax rate applied to income before income taxes	\$ 1,777	26.5 %	\$ 1,558	26.5 %	\$ 1,328	26.5 %
Income taxes adjusted for the effect of:						
Earnings of foreign subsidiaries	(220)	(3.3)	(137)	(2.3)	(152)	(3.0)
Tax-exempt income	(203)	(3.0)	(219)	(3.7)	(348)	(7.0)
Disposition	(1)	–	(26)	(0.4)	(76)	(1.5)
Changes in income tax rate on deferred tax balances	88	1.3	3	–	(11)	(0.2)
Impact of equity-accounted income	(29)	(0.4)	(25)	(0.4)	(24)	(0.5)
Other	10	0.1	8	0.1	1	– ⁽¹⁾
Income taxes in the consolidated statement of income	\$ 1,422	21.2 %	\$ 1,162	19.8 %	\$ 718	14.3 %

(1) Due to rounding.

Defered income taxes

Sources of and movement in deferred tax assets and liabilities

Defered tax assets

		Allowance for credit losses	Buildings and equipment	Pension and employee benefits	Provisions	Financial instrument revaluation	Tax loss carry- forwards ⁽¹⁾	Unearned income	Other	Total assets
\$ millions, for the year ended October 31										
2018	Balance at beginning of year under IAS 39	\$ 245	\$ 69	\$ 559	\$ 47	\$ 124	\$ 18	\$ 105	\$ 2	\$ 1,169
	Impact of adopting IFRS 9 at November 1, 2017	7	–	–	–	20	–	–	–	27
	Balance at beginning of year under IFRS 9	252	69	559	47	144	18	105	2	1,196
	Recognized in net income	31	(53)	(45)	(31)	(60)	20	22	–	(116)
	Recognized in OCI	1	–	(87)	–	(1)	–	–	–	(87)
	Other⁽²⁾	14	(4)	10	–	(17)	–	(2)	–	1
	Balance at end of year	\$ 298	\$ 12	\$ 437	\$ 16	\$ 66	\$ 38	\$ 125	\$ 2	\$ 994
2017	Balance at beginning of year	\$ 227	\$ 88	\$ 520	\$ 31	\$ 25	\$ 70	\$ 115	\$ 2	\$ 1,078
	Recognized in net income	2	(14)	19	15	(26)	(49)	3	–	(50)
	Recognized in OCI	–	–	(49)	–	19	–	–	–	(30)
	Acquisitions	14	–	86	–	111	–	7	3	221
	Other ⁽²⁾	2	(5)	(17)	1	(5)	(3)	(20)	(3)	(50)
	Balance at end of year	\$ 245	\$ 69	\$ 559	\$ 47	\$ 124	\$ 18	\$ 105	\$ 2	\$ 1,169
2016	Balance at beginning of year	\$ 208	\$ 81	\$ 353	\$ 25	\$ 2	\$ 62	\$ 101	\$ 1	\$ 833
	Recognized in net income	18	2	13	7	7	–	16	1	64
	Recognized in OCI	–	–	155	–	16	–	–	–	171
	Other ⁽²⁾	1	5	(1)	(1)	–	8	(2)	–	10
	Balance at end of year	\$ 227	\$ 88	\$ 520	\$ 31	\$ 25	\$ 70	\$ 115	\$ 2	\$ 1,078

Defered tax liabilities

		Intangible assets	Buildings and equipment	Pension and employee benefits	Goodwill	Financial instrument revaluation	Foreign currency	Other	Total liabilities
\$ millions, for the year ended October 31									
2018	Balance at beginning of year under IFRS 9⁽³⁾	\$ (329)	\$ (52)	\$ (10)	\$ (93)	\$ (17)	\$ (1)	\$ 30	\$ (472)
	Recognized in net income	53	–	3	1	3	–	(13)	47
	Recognized in OCI	–	–	(3)	–	(2)	–	13	8
	Other⁽²⁾	(11)	5	(1)	7	4	1	(24)	(19)
	Balance at end of year	\$ (287)	\$ (47)	\$ (11)	\$ (85)	\$ (12)	\$ –	\$ 6	\$ (436)
2017	Balance at beginning of year	\$ (158)	\$ (45)	\$ (8)	\$ (88)	\$ (54)	\$ 24	\$ 1	\$ (328)
	Recognized in net income	(19)	(3)	1	(5)	36	–	19	29
	Recognized in OCI	–	–	(5)	–	(13)	–	2	(16)
	Acquisitions	(143)	(7)	–	–	–	–	–	(150)
	Other ⁽²⁾	(9)	3	2	–	14	(25)	8	(7)
	Balance at end of year	\$ (329)	\$ (52)	\$ (10)	\$ (93)	\$ (17)	\$ (1)	\$ 30	\$ (472)
2016	Balance at beginning of year	\$ (124)	\$ (49)	\$ (13)	\$ (81)	\$ (29)	\$ (38)	\$ (20)	\$ (354)
	Recognized in net income	(33)	5	8	(6)	(29)	–	11	(44)
	Recognized in OCI	–	–	(5)	–	(8)	62	4	53
	Other ⁽²⁾	(1)	(1)	2	(1)	12	–	6	17
	Balance at end of year	\$ (158)	\$ (45)	\$ (8)	\$ (88)	\$ (54)	\$ 24	\$ 1	\$ (328)

Net deferred tax assets as at October 31, 2018

Net deferred tax assets as at October 31, 2017

Net deferred tax assets as at October 31, 2016

\$ 558

\$ 697

\$ 750

(1) The tax loss carryforwards include \$38 million (2017: \$18 million; 2016: \$70 million) that relate to operating losses (of which \$2 million relate to Canada and \$36 million relate to the Caribbean) that expire in various years commencing in 2019.

(2) Includes foreign currency translation adjustments.

(3) Transition impact from the adoption of IFRS 9 at November 1, 2017 was nil.

Defered tax assets and liabilities are assessed by entity for presentation in our consolidated balance sheet. As a result, the net deferred tax assets of \$558 million (2017: \$697 million) are presented in the consolidated balance sheet as deferred tax assets of \$601 million (2017: \$727 million) and deferred tax liabilities of \$43 million (2017: \$30 million).

Unrecognized tax losses

The amount of unused operating tax losses for which deferred tax assets have not been recognized was \$1,051 million as at October 31, 2018 (2017: \$1,141 million) of which nil (2017: nil) has no expiry date, and of which \$1,051 million (2017: \$1,141 million) expires within 10 years. These unused tax losses substantially relate to the Caribbean region.

The amount of unused capital tax losses for which deferred tax assets have not been recognized was \$614 million as at October 31, 2018 (2017: nil). These unused tax losses relate to Canada.

U.S. Tax Reforms

On December 22, 2017, the President of the United States signed into law the Tax Cuts and Jobs Act (U.S. tax reforms), which reduced the U.S. federal corporate income tax rate to 21% effective January 1, 2018, resulting in a significant decrease in CIBC's U.S. deferred tax assets. The U.S. tax reforms resulted in a net expense of \$90 million in the first quarter of 2018, of which \$88 million was recognized in income and \$2 million was recognized in OCI. The ultimate impact of the U.S. tax reforms may differ from this amount due to changes in assumptions that we have made in our estimation of this amount or as a result of guidance or interpretations that may be issued by regulatory authorities or other bodies. The U.S. tax reforms introduced other important changes to U.S. corporate income tax laws including the creation of a new Base Erosion Anti-abuse Tax (BEAT) that subjects certain payments from a U.S. corporation to foreign related parties to additional taxes. The BEAT provision is applicable to CIBC in fiscal 2019. CIBC continues to evaluate the impact of BEAT on our U.S. operations.

Enron

In prior years, the Canada Revenue Agency (CRA) issued reassessments disallowing the deduction of approximately \$3 billion of the 2005 Enron settlement payments and related legal expenses. The Tax Court of Canada trial on the deductibility of the Enron payments is set to commence in January 2019. Should we successfully defend our tax filing position in its entirety, we would recognize an additional accounting tax benefit of \$231 million and taxable refund interest of approximately \$210 million. Should we fail to defend our position in its entirety, we would incur an additional tax expense of approximately \$820 million and non-deductible interest of approximately \$157 million.

Dividend Received Deduction

In prior years, the CRA reassessed CIBC approximately \$298 million of additional income tax by denying the tax deductibility of certain 2011 and 2012 Canadian corporate dividends on the basis that they were part of a "dividend rental arrangement". In March 2018, CIBC filed a Notice of Appeal with the Tax Court of Canada with respect to the 2011 taxation year. The matter is now in litigation. The circumstances of the dividends subject to the reassessments are similar to those prospectively addressed by the rules in the 2015 and 2018 Canadian federal budgets. In June 2018, the CRA reassessed CIBC in respect of the 2013 taxation year for approximately \$229 million of additional taxes. It is possible that subsequent years may be reassessed for similar activities. CIBC is confident that its tax filing positions were appropriate and intends to defend itself vigorously. Accordingly, no amounts have been accrued in the consolidated financial statements.

Note 20 | Earnings per share

\$ millions, except per share amounts, for the year ended October 31

	2018	2017	2016
Basic EPS			
Net income attributable to equity shareholders	\$ 5,267	\$ 4,699	\$ 4,275
Less: preferred share dividends and premiums	89	52	38
Net income attributable to common shareholders	5,178	4,647	4,237
Weighted-average common shares outstanding (thousands)	443,082	412,636	395,389
Basic EPS	\$ 11.69	\$ 11.26	\$ 10.72
Diluted EPS			
Net income attributable to common shareholders	\$ 5,178	\$ 4,647	\$ 4,237
Weighted-average common shares outstanding (thousands)	443,082	412,636	395,389
Add: stock options potentially exercisable ⁽¹⁾ (thousands)	1,111	827	530
Add: restricted shares and equity-settled consideration (thousands)	434	100	–
Weighted-average diluted common shares outstanding (thousands)	444,627	413,563	395,919
Diluted EPS	\$ 11.65	\$ 11.24	\$ 10.70

(1) Excludes average options outstanding of 688,123 with a weighted-average exercise price of \$120.02 (2017: 729,807 with a weighted-average exercise price of \$111.69; 2016: 1,304,880 with a weighted-average exercise price of \$99.80), as the options' exercise prices were greater than the average market price of common shares.

Note 21 | Commitments, guarantees and pledged assets

Commitments

Credit-related arrangements

Credit-related arrangements are generally off-balance sheet instruments and are typically entered into to meet the financing needs of clients. In addition, there are certain exposures for which we could be obligated to extend credit that are not recorded on the consolidated balance sheet. Our policy of requiring collateral or other security to support credit-related arrangements and the types of security held is generally the same as for loans. The contract amounts presented below for credit-related arrangements represent the maximum amount of additional credit that we could be obligated to extend. The contract amounts also represent the additional credit risk amounts should the contracts be fully drawn, the counterparties default and any collateral held proves to be of no value. As many of these arrangements will expire or terminate without being drawn upon, the contract amounts are not necessarily indicative of future cash requirements or actual risk of loss.

\$ millions, as at October 31	Contract amounts	
	2018	2017 ⁽¹⁾
Securities lending ⁽²⁾	\$ 51,550	\$ 46,753
Unutilized credit commitments ⁽³⁾	224,746	209,433
Backstop liquidity facilities	10,520	11,195
Standby and performance letters of credit	13,242	12,764
Documentary and commercial letters of credit	199	214
	\$ 300,257	\$ 280,359

(1) Certain information has been reclassified to conform the presentation adopted in the current year.

(2) Excludes securities lending of \$2.7 billion (2017: \$2.0 billion) for cash because it is reported on the consolidated balance sheet.

(3) Includes \$116.5 billion (2017: \$111.7 billion) of personal, home equity and credit card lines, which are unconditionally cancellable at our discretion.

In addition, the client securities lending of the joint ventures which CIBC has with The Bank of New York Mellon totalled \$81.2 billion (2017: \$82.4 billion) of which \$7.8 billion (2017: \$11.7 billion) are transactions between CIBC and the joint ventures.

CIBC has provided indemnities to customers of the joint ventures in respect of securities lending transactions with third parties amounting to \$70.6 billion (2017: \$68.1 billion).

Securities lending

Securities lending represents our credit exposure when we lend our own or our clients' securities to a borrower and the borrower defaults on the redelivery obligation. The borrower must fully collateralize the security lent at all times.

Unutilized credit commitments

Unutilized credit commitments are the undrawn portion of lending facilities that we have approved to meet the requirements of clients. These lines may include various conditions that must be satisfied prior to drawdown and include facilities extended in connection with contingent acquisition financing. The credit risk associated with these lines arises from the possibility that a commitment will be drawn down as a loan at some point in the future, prior to the expiry of the commitment. The amount of collateral obtained, if deemed necessary, is based on our credit evaluation of the borrower and may include a charge over the present and future assets of the borrower.

Backstop liquidity facilities

We provide irrevocable backstop liquidity facilities primarily to ABCP conduits. We are the financial services agent for some of these conduits, while other conduits are administered by third parties. The liquidity facilities for our sponsored ABCP programs, Safe Trust, Sure Trust, and Sound Trust, require us to provide funding, subject to the satisfaction of certain limited conditions with respect to the conduits, to fund non-defaulted assets.

Standby and performance letters of credit

These represent an irrevocable obligation to make payments to third parties in the event that clients are unable to meet their contractual financial or performance obligations. The credit risk associated with these instruments is essentially the same as that involved in extending irrevocable loan commitments to clients. The amount of collateral obtained, if deemed necessary, is based on our credit evaluation of the borrower and may include a charge over present and future assets of the borrower.

Documentary and commercial letters of credit

Documentary and commercial letters of credit are short-term instruments issued on behalf of a client, authorizing a third party, such as an exporter, to draw drafts on CIBC up to a specified amount, subject to specific terms and conditions. We are at risk for any drafts drawn that are not ultimately settled by the client; however, the amounts drawn are collateralized by the related goods.

Operating lease commitments⁽¹⁾

Future minimum lease payments and receipts for operating lease commitments for each of the five succeeding years and thereafter are as follows:

\$ millions, as at October 31, 2018	Operating leases	
	Payments	Receipts ⁽²⁾
2019	\$ 494	\$ 127
2020	472	127
2021	484	132
2022	435	133
2023	370	134
2024 and thereafter	3,505	1,239

(1) Total rental expense (excluding servicing agreements) in respect of buildings and equipment was \$494 million (2017: \$476 million; 2016: \$445 million).

(2) Includes sub-lease income from a finance lease property, a portion of which is rented out and considered an investment property.

Finance lease commitments⁽¹⁾

Future minimum lease payments for finance lease commitments for each of the five succeeding years and thereafter are as follows:

\$ millions, as at October 31, 2018

2019	\$ 52
2020	50
2021	48
2022	45
2023	42
2024 and thereafter	285
	522
Less: future interest charges	168
Present value of finance lease commitments	\$ 354

(1) Total interest expense related to finance lease arrangements was \$25 million (2017: \$28 million; 2016: \$30 million).

Other commitments

As an investor in merchant banking activities, we enter into commitments to fund external private equity funds. In connection with these activities, we had commitments to invest up to \$194 million (2017: \$143 million).

In addition, we act as underwriter for certain new issuances under which we alone or together with a syndicate of financial institutions purchase these new issuances for resale to investors. As at October 31, 2018, the related underwriting commitments were \$176 million (2017: \$424 million).

Guarantees and other indemnification agreements**Guarantees**

A guarantee is a contract that requires the issuer 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 and performance letters of credit as discussed above, and credit derivatives protection sold, as discussed in Note 12.

Other indemnification agreements

In the ordinary course of operations, we enter into contractual arrangements under which we may agree to indemnify the counterparty to such arrangement from any losses relating to a breach of representations and warranties, a failure to perform certain covenants, or for claims or losses arising from certain external events as outlined within the particular contract. This may include, for example, losses arising from changes in tax legislation, litigation, or claims relating to past performance. In addition, we have entered into indemnification agreements with each of our directors and officers to indemnify those individuals, to the extent permitted by law, against any and all claims or losses (including any amounts paid in settlement of any such claims) incurred as a result of their service to CIBC. In most indemnities, maximum loss clauses are generally not provided for, and as a result, no defined limit of the maximum potential liability exists. Amounts are accrued when we have a present legal or constructive obligation as a result of a past event, when it is both probable that an outflow of economic benefits will be required to resolve the matter, and when a reliable estimate can be made of the amount of the obligation. We believe that the likelihood of the conditions arising to trigger obligations under these contract arrangements is remote. Historically, any payments made in respect of these contracts have not been significant. Amounts related to these indemnifications, representations, and warranties reflected within the consolidated financial statements as at October 31, 2018 and 2017 are not significant.

Pledged assets

In the normal course of business, on-and off-balance sheet assets are pledged as collateral against liabilities. The following table summarizes asset pledging amounts and the activities to which they relate:

\$ millions, as at October 31	2018	2017 ⁽¹⁾
Assets pledged in relation to:		
Securities borrowing and lending	\$ 47,894	\$ 46,086
Obligations related to securities sold under repurchase agreements	31,058	27,568
Obligations related to securities sold short	13,782	13,707
Securizations	22,893	23,292
Covered bonds	21,544	18,805
Derivatives	11,680	9,084
Foreign governments and central banks ⁽²⁾	686	555
Clearing systems, payment systems, and depositories ⁽²⁾	5,867	4,333
Other	675	1,488
	\$ 156,079	\$ 144,918

(1) Certain information has been restated to conform to the presentation adopted in the current year.

(2) Includes assets pledged in order to participate in clearing and payment systems and depositories, or to have access to central bank facilities in foreign jurisdictions.

Note 22 | Contingent liabilities and provision

In the ordinary course of its business, CIBC is a party to a number of legal proceedings, including regulatory investigations, in which claims for substantial monetary damages are asserted against CIBC and its subsidiaries. Legal provisions are established if, in the opinion of management, it is both probable that an outflow of economic benefits will be required to resolve the matter, and a reliable estimate can be made of the amount of the obligation. If the reliable estimate of probable loss involves a range of potential outcomes within which a specific amount within the range appears to be a better estimate, that amount is accrued. If no specific amount within the range of potential outcomes appears to be a better estimate than any other amount, the mid-point in the range is accrued. In some instances, however, it is not possible either to determine whether an obligation is probable or to reliably estimate the amount of loss, in which case no accrual can be made.

While there is inherent difficulty in predicting the outcome of legal proceedings, based on current knowledge and in consultation with legal counsel, we do not expect the outcome of these matters, individually or in aggregate, to have a material adverse effect on our consolidated financial statements. However, the outcome of these matters, individually or in aggregate, may be material to our operating results for a particular reporting period. We regularly assess the adequacy of CIBC's litigation accruals and make the necessary adjustments to incorporate new information as it becomes available.

CIBC considers losses to be reasonably possible when they are neither probable nor remote. It is reasonably possible that CIBC may incur losses in addition to the amounts recorded when the loss accrued is the mid-point of a range of reasonably possible losses, or the potential loss pertains to a matter in which an unfavourable outcome is reasonably possible but not probable.

CIBC believes the estimate of the aggregate range of reasonably possible losses, in excess of the amounts accrued, for its significant legal proceedings, where it is possible to make such an estimate, is from nil to approximately \$1.2 billion as at October 31, 2018. This estimated aggregate range of reasonably possible losses is based upon currently available information for those significant proceedings in which CIBC is involved, taking into account CIBC's best estimate of such losses for those cases for which an estimate can be made. CIBC's estimate involves significant judgment, given the varying stages of the proceedings and the existence of multiple defendants in many of such proceedings whose share of the liability has yet to be determined. The range does not include potential punitive damages and interest. The matters underlying the estimated range as at October 31, 2018, consist of the significant legal matters disclosed below. The matters underlying the estimated range will change from time to time, and actual losses may vary significantly from the current estimate. For certain matters, CIBC does not believe that an estimate can currently be made as many of them are in preliminary stages and certain matters have no specific amount claimed. Consequently, these matters are not included in the range.

The following is a description of CIBC's significant legal proceedings, which we intend to vigorously defend.

Green v. Canadian Imperial Bank of Commerce, et al.

In July 2008, a shareholder plaintiff commenced this proposed class action in the Ontario Superior Court of Justice against CIBC and several former and current CIBC officers and directors. It alleges that CIBC and the individual officers and directors violated the *Ontario Securities Act* through material misrepresentations and non-disclosures relating to CIBC's exposure to the U.S. sub-prime mortgage market. The plaintiffs instituted this action on behalf of all CIBC shareholders in Canada who purchased shares between May 31, 2007 and February 28, 2008. The action seeks damages of \$10 billion. In July 2012, the plaintiffs' motions for leave to file the statement of claim and for class certification were dismissed by the Ontario Superior Court of Justice. In February 2014, the Ontario Court of Appeal released its decision overturning the lower court and allowing the matter to proceed as a certified class action. In August 2014, CIBC and the individual defendants were granted leave to appeal to the Supreme Court of Canada. The defendants' appeal to the Supreme Court of Canada was heard on February 9, 2015. In December 2015, the Supreme Court of Canada upheld the Ontario Court of Appeal's decision allowing the matter to proceed as a certified class action. No date has been set for a motion for summary judgment.

Fresco v. Canadian Imperial Bank of Commerce Gaudet v. Canadian Imperial Bank of Commerce

In June 2007, two proposed class actions were filed against CIBC in the Ontario Superior Court of Justice (*Fresco v. CIBC*) and in the Quebec Superior Court (*Gaudet v. CIBC*). Each makes identical claims for unpaid overtime for full-time, part-time, and retail frontline non-management employees. The Ontario action seeks \$500 million in damages plus \$100 million in punitive damages for all employees in Canada, while the Quebec action is limited to employees in Quebec and has been stayed pending the outcome of the Ontario action. In June 2009, in the Ontario action, the motion judge denied certification of the matter as a class action. In September 2010, the Ontario Divisional Court upheld the motion judge's denial of the plaintiff's certification motion and the award of costs to CIBC by a two-to-one majority. In January 2011, the Ontario Court of Appeal granted the plaintiff leave to appeal the decision denying certification. In June 2012, the Ontario Court of Appeal overturned the lower court and granted certification of the matter as a class action. The Supreme Court of Canada released its decision in March 2013 denying CIBC leave to appeal certification of the matter as a class action, and denying the plaintiff's cross appeal on aggregate damages. The plaintiff's motion for summary judgment is scheduled for September 2019.

Credit card class actions – Quebec Consumer Protection Act:

Marcotte v. Bank of Montreal, et al.
Corriveau v. Amex Bank of Canada, et al.
Lamoureux v. Bank of Montreal, et al.
St. Pierre v. Bank of Montreal, et al.
Marcotte v. Bank of Montreal, et al. (II)
Giroux v. Royal Bank of Canada, et al.
Pilon v. Amex Bank of Canada, et al.

Since 2004, a number of proposed class actions have been filed in the Quebec Superior Court against CIBC and numerous other financial institutions. The actions, brought on behalf of cardholders, allege that the financial institutions are in breach of certain provisions of the Quebec *Consumer Protection Act* (CPA). The alleged violations include charging fees on foreign currency transactions, charging fees on cash advances, increasing credit limits without the cardholder's express consent, and failing to allow a 21-day grace period before posting charges to balances upon which interest is calculated. CIBC and the other defendant banks are jointly raising a constitutional challenge to the Quebec CPA on the basis that banks are not required to comply with provincial legislation because banking and cost of borrowing disclosure is a matter of exclusive federal jurisdiction.

The first of these class actions (*Marcotte v. Bank of Montreal, et al.*), which alleges that charging cardholders fees on foreign currency transactions violates the Quebec CPA, went to trial in 2008. In a decision released in June 2009, the trial judge found in favour of the plaintiffs concluding that the Quebec CPA is constitutionally applicable to federally regulated financial institutions and awarding damages against all the defendants. The court awarded compensatory damages against CIBC in the amount of \$38 million plus an additional sum to be determined at a future date. The court awarded punitive damages against a number of the other defendants, but not against CIBC. CIBC and the other financial institutions appealed this decision. The appeal was

heard by the Quebec Court of Appeal in September 2011. In August 2012, the Quebec Court of Appeal allowed the defendant banks' appeals in part and overturned the trial judgment against CIBC. The plaintiffs and some of the defendant banks appealed to the Supreme Court of Canada, and that appeal was heard in February 2014. On September 19, 2014, the Supreme Court of Canada found that the relevant provisions of the Quebec CPA were constitutionally applicable to the banks, but that CIBC is not liable for damages because it fully complied with the Quebec CPA.

The *Giroux and Marcotte II* proposed class actions were discontinued in January 2015.

The *Lamoureux, St. Pierre and Corriveau* actions were settled in 2016 subject to court approval. Pursuant to the proposed settlement, CIBC will pay \$4.25 million to settle these three actions. The court approval hearing was held in December 2016. In January 2017, the court did not approve CIBC's proposed settlement as it found the fees for plaintiffs' counsel were excessive and the end date for one of the actions was later than required. The plaintiffs' appeal was heard in September 2017 and the appeal was dismissed in March 2018.

The *Pilon* proposed class action was commenced in January 2018 in Quebec against CIBC and several other financial institutions. The plaintiffs allege that the defendants breached the Quebec *Consumer Protection Act* and the *Bank Act* when they unilaterally increased the credit limit on the plaintiffs' credit cards. The claim seeks the return of all over limit fees charged to Quebec customers beginning in January 2015 as well as punitive damages of \$500 per class member.

Credit card class actions – Interchange fees litigation:

Bancroft-Snell v. Visa Canada Corporation, et al.

9085-4886 Quebec Inc. v. Visa Canada Corporation, et al.

Watson v. Bank of America Corporation, et al.

Fuze Salon v. BofA Canada Bank, et al.

1023926 Alberta Ltd. v. Bank of America Corporation, et al.

The Crown & Hand Pub Ltd. v. Bank of America Corporation, et al.

Hello Baby Equipment Inc. v. BofA Canada Bank, et al.

Since 2011 seven proposed class actions have been commenced against VISA Canada Corporation (Visa), MasterCard International Incorporated (MasterCard), CIBC and numerous other financial institutions. The actions, brought on behalf of all merchants who accepted payment by Visa or MasterCard from March 23, 2001 to the present, allege two "separate, but interrelated" conspiracies: one in respect of Visa and one in respect of MasterCard. The claims allege that Visa and MasterCard conspired with their issuing banks to set default interchange rate and merchant discount fees and that certain rules (Honour All Cards and No Surcharge) have the effect of increasing the merchant discount fees. The claims allege civil conspiracy, violation of the Competition Act, interference with economic interests and unjust enrichment. The claims seek unspecified general and punitive damages. The motion for class certification in *Watson* was granted in March 2014. The appeal of the decision granting class certification was heard in December 2014. In August 2015, the British Columbia Court of Appeal allowed the appeals in part, resulting in certain causes of action being struck and others being reinstated. The matter remains certified as a class action. The trial in *Watson*, which was scheduled to commence in September 2018, will be adjourned to October 2019. The motion for class certification in *9085-4886 Quebec Inc.* (formerly *Bakopanos*) was heard in November 2017. In February 2018, the Court certified *9085-4886 Quebec Inc.* as a class action. The plaintiffs are appealing the decision.

Mortgage prepayment class actions:

Jordan v. CIBC Mortgages Inc.

Lamarre v. CIBC Mortgages Inc.

Sherry v. CIBC Mortgages Inc.

Haroch v. Toronto Dominion Bank, et al.

In 2011, three proposed class actions were filed in the Superior Courts of Ontario, Quebec and British Columbia against CIBC Mortgages Inc. The representative plaintiffs allege that since 2005, CIBC Mortgages Inc. wrongfully charged or overcharged mortgage prepayment penalties and that the calculation clauses in the mortgage contract that provide for discretion in applying the prepayment penalties are void and unenforceable at law. The motion for class certification in *Sherry* was granted in June 2014 conditional on the plaintiffs framing a workable class definition. In July 2014, CIBC filed a Notice of Appeal. CIBC's appeal of the certification decision in *Sherry* was heard in April 2016. The court reserved its decision. In June 2016, the British Columbia Court of Appeal allowed the appeal in *Sherry* in part, resulting in certain causes of action being struck. *Sherry* remains certified as a class action, and continuation of the certification motion on the amended pleading was heard November 2017. In August 2018, the court certified certain of the plaintiffs' causes of action in *Sherry*. CIBC is appealing the decision. The certification motion in *Jordan* was heard in August 2018. The court reserved its decision.

In May 2018, a new proposed class action, *Haroch*, was filed in the Superior Court of Quebec. The action is brought on behalf of Quebec residents who during the class period allegedly paid a mortgage prepayment charge in excess of three months' interest. The plaintiffs allege that the defendants created complex prepayment formulas that are contrary to the *Quebec Civil Code*, the *Quebec Consumer Protection Act* and the *Interest Act* and seek damages back to 2015.

Oppenheimer Holdings Inc., Oppenheimer & Co. Inc. and OPY Credit Corp v. Canadian Imperial Bank of Commerce and CIBC World Markets Corp.

In March 2013, a claim was filed in New York State Supreme Court against CIBC by Oppenheimer Holdings Inc., Oppenheimer & Co. Inc. and OPY Credit Corp. seeking damages of US\$176 million relating to an alleged breach of a credit facility that Canadian Imperial Bank of Commerce entered into with OPY Credit Corp. in January 2008 (*Oppenheimer Holdings Inc. v. Canadian Imperial Bank of Commerce*). In November 2013, the court dismissed all claims brought by Oppenheimer Holdings Inc. and Oppenheimer & Co. Inc. and reduced the claim to one cause of action, a claim by OPY Credit Corp. alleging that Canadian Imperial Bank of Commerce breached the credit facility. In January 2014, plaintiffs filed an amended complaint again asserting claims relating to alleged breaches of the credit facility, as well as claims relating to an asset purchase agreement between Oppenheimer Holdings Inc. and Oppenheimer & Co. Inc., and Canadian Imperial Bank of Commerce and CIBC World Markets Corp. In October 2014, the court granted CIBC's motion to dismiss in part, narrowing the claims against CIBC. In July 2018, the court granted CIBC's motion for summary judgment dismissing the action. As the plaintiffs did not appeal the decision, this matter is now closed.

Cerberus Capital Management L.P. v. CIBC

In October 2015, Securitized Asset Funding 2011-2, LTD., a special purpose investment vehicle affiliated with Cerberus Capital Management L.P. (collectively, "Cerberus"), commenced a Federal Court action in New York against CIBC seeking unspecified damages of "at least hundreds of millions of dollars". The action relates to two transactions in 2008 and 2011 in which CIBC issued a limited recourse note and certificate to Cerberus which significantly reduced CIBC's exposure to the U.S. residential real estate market. The complaint alleges that CIBC breached its contract with Cerberus by failing to appropriately calculate and pay with respect to two of the payment streams due under the 2008 note and 2011 certificate.

In November 2015, Cerberus voluntarily dismissed the Federal Court action and filed a new action asserting the same claims in New York State Court. In January 2016, CIBC served its Answer and Counterclaims. In March 2016, Cerberus filed a motion for summary judgment and sought to stay discovery. In April 2016, the court directed the parties to start discovery. In April 2018, the court denied the plaintiffs' motion for summary judgment. The plaintiffs appealed the decision, which was heard in November 2018. The court reserved its decision.

Fire & Police Pension Association of Colorado v. Bank of Montreal, et al.

In January 2018, a proposed class action was filed in the U.S. District Court for the Southern District of New York against CIBC, CIBC World Markets Corp., CIBC World Markets Inc. and several other financial institutions. The complaint alleges that the defendant financial institutions conspired to depress a benchmark interest rate called the Canadian Dealer Offered Rate (CDOR) by making coordinated, artificially low submissions to the survey used to calculate the CDOR. The plaintiffs allege that a depressed CDOR benefitted defendants as parties to derivatives transactions that settled by reference to that rate. The complaint asserts claims under the antitrust laws and the Commodity Exchange Act, among others. The representative plaintiff, seeks to represent a putative class of entities that engaged in U.S.-based transactions in financial instruments that were priced, benchmarked, and/or settled based on CDOR between August 9, 2007 and June 30, 2014. In March 2018, the plaintiff delivered an amended claim extending the class period to December 2014. The defendants have brought motions to dismiss, which are pending.

Valeant class actions:

Catucci v. Valeant Pharmaceuticals International Inc., et al.

Potter v. Valeant Pharmaceuticals International Inc., et al.

In March 2016, a proposed class action was filed in the Quebec Superior Court on behalf of purchasers of shares in Valeant Pharmaceuticals International Inc. against the issuer, its directors and officers, its auditors and the underwriting syndicates for six public offerings from 2013 to 2015. CIBC World Markets Corp. was part of the underwriting syndicate for three of the offerings (underwriting 1.5% of a US\$1.6 billion offering in June 2013, 1.5% of a US\$900 million offering in December 2013 and 0.625% of an offering comprising US\$5.25 billion and €1.5 billion in March 2015). The proposed class action alleges various misrepresentations on the part of Valeant and the other defendants, including representations made in the prospectus of the public offerings, relating to Valeant's relationships with various "specialty pharmacies" who were allegedly acting improperly in the distribution of Valeant's products resulting in Valeant's operational results, revenues, and share price during the relevant period being artificially inflated. In July 2016, a similar proposed class action (*Potter v. Valeant Pharmaceuticals International Inc., et al.*) was commenced in New Jersey Federal Court.

The motion for class certification in *Catucci* and motion to dismiss in *Potter* were heard in April 2017. In September 2017, the court certified *Catucci* as a class action. The defendants sought leave to appeal the certification decision, which was dismissed in December 2017. In *Potter* the court dismissed the action against the underwriters, without prejudice to the plaintiff to re-plead its allegations.

PrivateBancorp Appraisal Rights Matters

In August 2017, two appraisal petitions were filed against PrivateBancorp by former PrivateBancorp shareholders who exercised their dissent and appraisal rights under Delaware law. In October 2017, PrivateBancorp was named in a third petition. These matters have been consolidated. The petitioners were seeking a judicial determination of the fair value of PrivateBancorp's common stock at the time the acquisition by CIBC closed on June 23, 2017. In November 2017, CIBC and the petitioners entered into an agreement to settle the dispute, subject to the court's entry of an order dismissing the consolidated petition. In November 2017, the court entered an order dismissing the consolidated petition. This matter is now closed. See Note 3 for additional details on our acquisition of PrivateBancorp.

Simplii Privacy Class Actions

Bannister v. CIBC (formerly John Doe v. CIBC)

Steinman v. CIBC

In June 2018, two proposed class actions were filed against CIBC on behalf of Simplii Financial clients who allege their personal information was disclosed as a result of a security incident in May 2018. The actions allege that Simplii Financial failed to protect its clients' personal information. The *Bannister* proposed class action seeks aggregated damages of approximately \$550 million, while the *Steinman* proposed class action, which has been stayed, sought damages per class member plus punitive damages of \$20 million. The motion for certification in *Bannister* is scheduled for October 2019.

Pozgaj v. CIBC and CIBC Trust

In September 2018, a proposed class action was filed in the Ontario Superior Court against CIBC and CIBC Trust. It alleges that the defendants should not have paid mutual fund trailing commissions to order execution only dealers. The action is brought on behalf of all persons who held units of CIBC mutual funds through order execution only dealers and seeks \$200 million in damages.

Legal provisions⁽¹⁾

The following table presents changes in our legal provisions:

\$ millions, for the year ended October 31	2018	2017
Balance at beginning of year	\$ 97	\$ 118
Additional new provisions recognized	23	67
Less:		
Amounts incurred and charged against existing provisions	(78)	(70)
Unused amounts reversed	(2)	(18)
Balance at end of year	\$ 40	\$ 97

(1) Excludes amounts recognized in respect of the PrivateBancorp Appraisal Rights Matters. See Note 3 for additional details.

Restructuring

The following table presents changes in the restructuring provision:

\$ millions, for the year ended October 31	2018	2017
Balance at beginning of year	\$ 149	\$ 256
Additional new provisions recognized	28	21
Less:		
Amounts incurred and charged against existing provisions	(70)	(104)
Unused amounts reversed	(36)	(24)
Balance at end of year	\$ 71	\$ 149

While the amount of \$71 million recognized represents our best estimate as at October 31, 2018 of the amount required to settle the obligation, uncertainty exists with respect to when the obligation will be settled and the amounts that will ultimately be paid, as this will largely depend upon individual facts and circumstances.

Note 23 | Concentration of credit risk

Concentration of credit exposure may arise with a group of counterparties that have similar economic characteristics or are located in the same geographic region. The ability of such counterparties to meet contractual obligations would be similarly affected by changing economic, political or other conditions.

The amounts of credit exposure associated with our on- and off-balance sheet financial instruments are summarized in the following table:

Credit exposure by country of ultimate risk

\$ millions, as at October 31	2018				2017			
	Canada	U.S.	Other countries	Total	Canada	U.S.	Other countries	Total
On-balance sheet								
Major assets ⁽¹⁾⁽²⁾⁽³⁾	\$ 431,917	\$ 99,063	\$ 40,405	\$ 571,385	\$ 407,878	\$ 96,542	\$ 38,469	\$ 542,889
Off-balance sheet								
Credit-related arrangements								
Financial institutions	\$ 45,295	\$ 16,358	\$ 12,258	\$ 73,911	\$ 46,069	\$ 13,155	\$ 7,660	\$ 66,884
Governments	9,880	10	50	9,940	8,377	11	73	8,461
Retail	124,625	386	390	125,401	120,451	341	381	121,173
Corporate	58,397	25,158	7,450	91,005	55,847	21,502	6,492	83,841
	\$ 238,197	\$ 41,912	\$ 20,148	\$ 300,257	\$ 230,744	\$ 35,009	\$ 14,606	\$ 280,359
Derivative instruments ⁽⁴⁾⁽⁵⁾								
By counterparty type								
Financial institutions	\$ 4,856	\$ 4,341	\$ 3,950	\$ 13,147	\$ 5,846	\$ 4,696	\$ 5,359	\$ 15,901
Governments	3,361	–	9	3,370	3,670	–	2	3,672
Corporate	1,268	993	783	3,044	1,305	731	922	2,958
	9,485	5,334	4,742	19,561	10,821	5,427	6,283	22,531
Less: effect of netting	(5,673)	(3,252)	(2,864)	(11,789)	(6,739)	(3,972)	(3,266)	(13,977)
Total derivative instruments	\$ 3,812	\$ 2,082	\$ 1,878	\$ 7,772	\$ 4,082	\$ 1,455	\$ 3,017	\$ 8,554

(1) Major assets consist of cash and deposits with banks, loans and acceptances net of allowance for credit losses, securities, securities borrowed or purchased under resale agreements, and derivative instruments.

(2) Includes Canadian currency of \$410.5 billion (2017: \$397.8 billion) and foreign currencies of \$160.9 billion (2017: \$145.1 billion).

(3) No industry or foreign jurisdiction accounted for more than 10% of loans and acceptances net of allowance for credit losses, with the exception of the U.S., which accounted for 10.5% as at October 31, 2018 (2017: 9.7%).

(4) Derivative instruments are presented at fair value.

(5) Does not include exchange-traded derivatives of \$1,870 million (2017: \$1,811 million).

In addition, see Note 21 for details on the client securities lending of the joint ventures which CIBC has with The Bank of New York Mellon.

Also see shaded sections in "MD&A – Management of risk" for a detailed discussion on our credit risk.

Note 24 | Related-party transactions

In the ordinary course of business, we provide banking services and enter into transactions with related parties on terms similar to those offered to unrelated parties. Related parties include key management personnel⁽¹⁾, their close family members, and entities that they or their close family members control or jointly control. Related parties also include associates and joint ventures accounted for under the equity method, and post-employment benefit plans for CIBC employees. Loans to these related parties are made in the ordinary course of business and on substantially the same terms as for comparable transactions with unrelated parties. As CIBC's subsidiaries are consolidated, transactions with these entities have been eliminated and are not reported as related-party transactions. We offer a subsidy on annual fees and preferential interest rates on credit card balances to senior officers which is the same offer extended to all employees of CIBC.

Key management personnel and their affiliates

As at October 31, 2018, loans to key management personnel⁽¹⁾ and their close family members and to entities that they or their close family members control or jointly control totalled \$209 million (2017: \$186 million), letters of credit and guarantees totalled \$5 million (2017: \$2 million), and undrawn credit commitments totalled \$59 million (2017: \$57 million).

These outstanding balances are generally unsecured and we have no provision for credit losses on impaired loans relating to these amounts for the years ended October 31, 2018 and 2017.

(1) Key management personnel are defined as those persons having authority and responsibility for planning, directing and controlling the activities of CIBC directly or indirectly and comprise the members of the Board (referred to as directors), and Executive Committee (ExCo) and certain named officers per the *Bank Act* (Canada) (collectively referred to as senior officers). Board members who are also ExCo members are included as senior officers.

Compensation of key management personnel

\$ millions, for the year ended October 31

	2018		2017	
	Directors	Senior officers	Directors	Senior officers
Short-term benefits ⁽¹⁾	\$ 2	\$ 23	\$ 2	\$ 23
Post-employment benefits	–	3	–	3
Share-based benefits ⁽²⁾	2	35	2	54
Termination benefits	–	–	–	14
Total compensation	\$ 4	\$ 61	\$ 4	\$ 94

(1) Comprises salaries, statutory and non-statutory benefits related to senior officers and fees related to directors recognized during the year. Also includes annual incentive plan payments related to senior officers on a cash basis.

(2) Comprises grant-date fair values of awards granted in the year (2017: Included awards granted with respect to the acquisition of The PrivateBank, and changes to CIBC's leadership team).

Refer to the following Notes for additional details on related-party transactions:

Share-based payment plans

See Note 17 for details of these plans offered to directors and senior officers.

Post-employment benefit plans

See Note 18 for related-party transactions between CIBC and the post-employment benefit plans.

Equity-accounted associates and joint ventures

See Note 25 for details of our investments in equity-accounted associates and joint ventures.

Note 25 | Investments in equity-accounted associates and joint ventures

Joint ventures

CIBC is a 50/50 joint venture partner with The Bank of New York Mellon in two joint ventures: CIBC Mellon Trust Company and CIBC Mellon Global Securities Services Company, which provide trust and asset servicing, both in Canada. As at October 31, 2018, the carrying value of our investments in the joint ventures was \$463 million (2017: \$402 million), which was included in Corporate and Other.

As at October 31, 2018, loans to the joint ventures totalled nil (2017: nil) and undrawn credit commitments totalled \$128 million (2017: \$128 million).

CIBC, The Bank of New York Mellon, and CIBC Mellon have, jointly and severally, provided indemnities to customers of the joint ventures in respect of securities lending transactions. See Note 21 for additional details.

There was no unrecognized share of losses of any joint ventures, either for the year or cumulatively. In 2018 and 2017, none of our joint ventures experienced any significant restrictions to transfer funds in the form of cash dividends or distributions, or repayment of loans or advances.

The following table provides the summarized aggregate financial information related to our proportionate interest in the equity-accounted joint ventures:

\$ millions, for the year ended October 31	2018	2017	2016
Net income	\$ 106	\$ 81	\$ 64
OCI	(12)	(30)	2
Total comprehensive income	\$ 94	\$ 51	\$ 66

Associates

As at October 31, 2018, the total carrying value of our investments in associates was \$63 million (2017: \$313 million). These investments comprise: listed associates with a carrying value of nil (2017: \$157 million) and a fair value of nil million (2017: \$192 million); and unlisted associates with a carrying value of \$63 million (2017: \$156 million) and a fair value of \$101 million (2017: \$164 million). Of the total carrying value of our investments in associates, nil (2017: \$2 million) was included in Canadian Personal and Small Business Banking, \$1 million (2017: nil) in Canadian Commercial Banking and Wealth Management, nil (2017: nil) in U.S. Commercial Banking and Wealth Management, \$41 million (2017: \$291 million) in Capital Markets, and \$21 million (2017: \$20 million) in Corporate and Other.

As at October 31, 2018, loans to associates totalled nil (2017: nil) and undrawn credit commitments totalled \$79 million (2017: \$153 million). We also had commitments to invest up to nil (2017: nil) in our associates.

There was no unrecognized share of losses of any associate, either for the year or cumulatively. In 2018 and 2017, none of our associates experienced any significant restrictions to transfer funds in the form of cash dividends or distributions, or repayment of loans or advances.

The following table provides the summarized aggregate financial information related to our proportionate interest in equity-accounted associates:

\$ millions, for the year ended October 31	2018	2017	2016
Net income ⁽¹⁾	\$ 15	\$ 20	\$ 32
OCI	(7)	6	4
Total comprehensive income	\$ 8	\$ 26	\$ 36

(1) Excludes realized gains and losses on the sale of our equity-accounted associates.

Note 26 | Significant subsidiaries

The following is a list of significant subsidiaries in which CIBC, either directly or indirectly, owns 100% of the voting shares, except where noted.

\$ millions, as at October 31, 2018

Subsidiary name ⁽¹⁾	Address of head or principal office	Book value of shares owned by CIBC ⁽²⁾
Canada and U.S.		
CIBC Asset Management Inc.	Toronto, Ontario, Canada	\$ 444
CIBC BA Limited	Toronto, Ontario, Canada	– ⁽³⁾
CIBC Bancorp USA Inc.	Chicago, Illinois, U.S.	9,077
Canadian Imperial Holdings Inc.	New York, New York, U.S.	
CIBC Inc.	New York, New York, U.S.	
CIBC Capital Corporation	New York, New York, U.S.	
CIBC World Markets Corp.	New York, New York, U.S.	
CIBC Bank USA	Chicago, Illinois, U.S.	
CIBC Private Wealth Group, LLC ⁽⁴⁾	Atlanta, Georgia, U.S.	
CIBC Private Wealth Advisors, Inc.	Chicago, Illinois, U.S.	
CIBC National Trust Company	Atlanta, Georgia, U.S.	
CIBC Delaware Trust Company	Wilmington, Delaware, U.S.	
CIBC Investor Services Inc.	Toronto, Ontario, Canada	25
CIBC Life Insurance Company Limited	Toronto, Ontario, Canada	23
CIBC Mortgages Inc.	Toronto, Ontario, Canada	230
CIBC Securities Inc.	Toronto, Ontario, Canada	2
CIBC Trust Corporation	Toronto, Ontario, Canada	591
CIBC World Markets Inc.	Toronto, Ontario, Canada	306
CIBC Wood Gundy Financial Services Inc.	Toronto, Ontario, Canada	
CIBC Wood Gundy Financial Services (Quebec) Inc.	Montreal, Quebec, Canada	
INTRIA Items Inc.	Mississauga, Ontario, Canada	100
International		
CIBC Australia Ltd	Sydney, New South Wales, Australia	19
CIBC Cayman Holdings Limited	George Town, Grand Cayman, Cayman Islands	1,742
CIBC Cayman Bank Limited	George Town, Grand Cayman, Cayman Islands	
CIBC Cayman Capital Limited	George Town, Grand Cayman, Cayman Islands	
CIBC Reinsurance Company Limited	Warrens, St. Michael, Barbados	
CIBC Investments (Cayman) Limited	George Town, Grand Cayman, Cayman Islands	2,820
FirstCaribbean International Bank Limited (91.7%)	Warrens, St. Michael, Barbados	
CIBC Bank and Trust Company (Cayman) Limited (91.7%)	George Town, Grand Cayman, Cayman Islands	
CIBC Fund Administration Services (Asia) Limited (91.7%)	Hong Kong, China	
CIBC Trust Company (Bahamas) Limited (91.7%)	Nassau, The Bahamas	
FirstCaribbean International Bank (Bahamas) Limited (87.3%)	Nassau, The Bahamas	
Sentry Insurance Brokers Ltd. (87.3%)	Nassau, The Bahamas	
FirstCaribbean International Bank (Barbados) Limited (91.7%)	Warrens, St. Michael, Barbados	
FirstCaribbean International Finance Corporation (Leeward & Windward) Limited (91.7%)	Castries, St. Lucia	
FirstCaribbean International Securities Limited (91.7%)	Kingston, Jamaica	
FirstCaribbean International Bank (Cayman) Limited (91.7%)	George Town, Grand Cayman, Cayman Islands	
FirstCaribbean International Finance Corporation (Netherlands Antilles) N.V. (91.7%)	Curacao, Netherlands Antilles	
FirstCaribbean International Bank (Curacao) N.V. (91.7%)	Curacao, Netherlands Antilles	
FirstCaribbean International Bank (Jamaica) Limited (91.7%)	Kingston, Jamaica	
FirstCaribbean International Bank (Trinidad and Tobago) Limited (91.7%)	Maraval, Port of Spain, Trinidad & Tobago	
FirstCaribbean International Wealth Management Bank (Barbados) Limited (91.7%)	Warrens, St. Michael, Barbados	
CIBC World Markets (Japan) Inc.	Tokyo, Japan	48
CIBC World Markets plc	London, United Kingdom	490

(1) Each subsidiary is incorporated or organized under the laws of the state or country in which the principal office is situated, except for Canadian Imperial Holdings Inc., CIBC Inc., CIBC Capital Corporation, CIBC World Markets Corp., CIBC Private Wealth Group, LLC, CIBC Private Wealth Advisors, Inc., and CIBC Bancorp USA Inc., which were incorporated or organized under the laws of the State of Delaware, U.S.; CIBC National Trust Company, which was organized under the laws of the United States; and CIBC World Markets (Japan) Inc., which was incorporated in Barbados.

(2) The book value of shares of subsidiaries is shown at cost and may include non-voting common and preferred shares. These amounts are eliminated upon consolidation.

(3) The book value of shares owned by CIBC is less than \$1 million.

(4) In 2018, Atlantic Trust Group, LLC and its subsidiaries were rebranded under the CIBC Private Wealth Management name. Atlantic Trust Group, LLC, AT Investment Advisers, Inc., Atlantic Trust Company, National Association, and Atlantic Trust Company of Delaware were renamed to CIBC Private Wealth Group, LLC, CIBC Private Wealth Advisors, Inc., CIBC National Trust Company, and CIBC Delaware Trust Company, respectively.

In addition to the above, we consolidate certain SEs where we have control over the SE. See Note 6 for additional details.

Note 27 | Financial instruments – disclosures

Certain disclosures required by IFRS 7 are provided in the shaded sections of the “MD&A – Management of risk”, as permitted by IFRS. The following table provides a cross referencing of those disclosures to the MD&A.

Description	Section
For each type of risk arising from financial instruments, an entity shall disclose: the exposure to risks and how they arise; objectives, policies and processes used for managing the risks; methods used to measure the risk; and description of collateral.	Risk overview Credit risk Market risk Liquidity risk Operational risk Reputation and legal risk Regulatory compliance risk
Credit risk: gross exposure to credit risk, credit quality and concentration of exposures.	Credit risk
Market risk: trading portfolios – Value-at-Risk (VaR); stressed VaR, incremental risk charge, non-trading portfolios – interest rate risk, foreign exchange risk and equity risk.	Market risk
Liquidity risk: liquid assets, maturity of financial assets and liabilities, and credit commitments.	Liquidity risk

We have provided quantitative disclosures related to credit risk consistent with Basel guidelines in the “Credit risk” section of the MD&A. The table below sets out the categories of the on-balance sheet exposures that are subject to the credit risk framework as set out in the Capital Adequacy Requirements (CAR) Guideline issued by OSFI under the different Basel approaches based on the carrying value of those exposures in our consolidated financial statements. The credit risk framework includes counterparty credit risk exposures arising from over-the-counter derivatives, repo-style transactions and trades cleared through CCPs, as well as securitization exposures. Items not subject to the credit risk framework include exposures that are subject to the market risk framework, amounts that are not subject to capital requirements or are subject to deduction from capital, and amounts relating to CIBC’s insurance subsidiaries, which are excluded from the scope of regulatory consolidation.

\$ millions, as at October 31		AIRB approach	Standardized approach	Other credit risk ⁽¹⁾	Total subject to credit risk	Not subject to credit risk	Total consolidated balance sheet
2018	Cash and deposits with banks	\$ 12,278	\$ 3,482	\$ 1,835	\$ 17,595	\$ 96	\$ 17,691
	Securities	42,714	8,915	–	51,629	50,035	101,664
	Cash collateral on securities borrowed	5,486	2	–	5,488	–	5,488
	Securities purchased under resale agreements	43,450	–	–	43,450	–	43,450
	Loans	338,776	33,277	982	373,035	–	373,035
	Allowance for credit losses	(1,149)	(490)	–	(1,639)	–	(1,639)
	Derivative instruments	21,410	21	–	21,431	–	21,431
	Customers’ liability under acceptances	10,264	1	–	10,265	–	10,265
	Other assets	11,775	321	5,875	17,971	7,743	25,714
	Total credit exposures	\$ 485,004	\$ 45,529	\$ 8,692	\$ 539,225	\$ 57,874	\$ 597,099
2017 ⁽²⁾	Total credit exposures	\$ 458,240	\$ 41,582	\$ 8,635	\$ 508,457	\$ 56,807	\$ 565,264

(1) Includes credit risk exposures arising from other assets that are subject to the credit risk framework but are not included in the standardized or AIRB frameworks, including other balance sheet assets which are risk-weighted at 100%, significant investments in the capital of non-financial institutions, and amounts below the thresholds for capital deduction which are risk-weighted at 250%.

(2) Certain information has been restated to conform to the presentation adopted in the current year.

Note 28 | Offsetting financial assets and liabilities

The following table identifies the amounts that have been offset on the consolidated balance sheet in accordance with the requirements of IAS 32 "Financial Instruments: Presentation", and also those amounts that are subject to enforceable netting agreements but do not qualify for offsetting on the consolidated balance sheet either because we do not have a currently enforceable legal right to set-off the recognized amounts, or because we do not intend to settle on a net basis or to realize the asset and settle the liability simultaneously.

Financial assets

\$ millions, as at October 31	Amounts subject to enforceable netting agreements						Amounts not subject to enforceable netting agreements ⁽⁴⁾	Net amounts presented on the consolidated balance sheet
	Gross amounts of recognized financial assets	Gross amounts offset on the consolidated balance sheet ⁽¹⁾	Net amounts	Related amounts not set-off on the consolidated balance sheet				
				Financial instruments ⁽²⁾	Collateral received ⁽³⁾	Net amounts		
2018								
Derivatives	\$ 33,862	\$ (14,750)	\$ 19,112	\$ (11,789)	\$ (4,794)	\$ 2,529	\$ 2,319	\$ 21,431
Cash collateral on securities borrowed	5,488	–	5,488	–	(5,406)	82	–	5,488
Securities purchased under resale agreements	45,028	(1,578)	43,450	–	(43,358)	92	–	43,450
	\$ 84,378	\$ (16,328)	\$ 68,050	\$ (11,789)	\$ (53,558)	\$ 2,703	\$ 2,319	\$ 70,369
2017								
Derivatives	\$ 31,147	\$ (9,458)	\$ 21,689	\$ (13,977)	\$ (3,939)	\$ 3,773	\$ 2,653	\$ 24,342
Cash collateral on securities borrowed	5,035	–	5,035	–	(4,901)	134	–	5,035
Securities purchased under resale agreements	40,999	(616)	40,383	–	(40,334)	49	–	40,383
	\$ 77,181	\$ (10,074)	\$ 67,107	\$ (13,977)	\$ (49,174)	\$ 3,956	\$ 2,653	\$ 69,760

Financial liabilities

\$ millions, as at October 31	Amounts subject to enforceable netting agreements						Amounts not subject to enforceable netting agreements ⁽⁴⁾	Net amounts presented on the consolidated balance sheet
	Gross amounts of recognized financial liabilities	Gross amounts offset on the consolidated balance sheet ⁽¹⁾	Net amounts	Related amounts not set-off on the consolidated balance sheet				
				Financial instruments ⁽²⁾	Collateral pledged ⁽³⁾	Net amounts		
2018								
Derivatives	\$ 33,358	\$ (14,750)	\$ 18,608	\$ (11,789)	\$ (5,539)	\$ 1,280	\$ 2,365	\$ 20,973
Cash collateral on securities lent	2,731	–	2,731	–	(2,697)	34	–	2,731
Obligations related to securities sold under repurchase agreements	32,418	(1,578)	30,840	–	(30,780)	60	–	30,840
	\$ 68,507	\$ (16,328)	\$ 52,179	\$ (11,789)	\$ (39,016)	\$ 1,374	\$ 2,365	\$ 54,544
2017								
Derivatives	\$ 31,058	\$ (9,458)	\$ 21,600	\$ (13,977)	\$ (5,468)	\$ 2,155	\$ 1,671	\$ 23,271
Cash collateral on securities lent	2,024	–	2,024	–	(1,983)	41	–	2,024
Obligations related to securities sold under repurchase agreements	28,587	(616)	27,971	–	(27,924)	47	–	27,971
	\$ 61,669	\$ (10,074)	\$ 51,595	\$ (13,977)	\$ (35,375)	\$ 2,243	\$ 1,671	\$ 53,266

(1) Comprises amounts related to financial instruments which qualify for offsetting. Effective beginning in 2017, derivatives cleared through the Chicago Mercantile Exchange (CME) are considered to be settled-to-market and not collateralized-to-market. Derivatives which are settled-to-market are settled on a daily basis, resulting in derecognition, rather than offsetting, of the related amounts. As a result, settled-to-market amounts are no longer considered to be subject to enforceable netting arrangements. In the absence of this change, an amount of \$531 million as at October 31, 2018 (2017: \$230 million) relating to derivatives cleared through CME would otherwise have been considered to be offset on the consolidated balance sheet.

(2) Comprises amounts subject to set-off under enforceable netting agreements, such as ISDA agreements, derivative exchange or clearing counterparty agreements, global master repurchase agreements, and global master securities lending agreements. Under such arrangements, all outstanding transactions governed by the relevant agreement can be offset if an event of default or other predetermined event occurs.

(3) Collateral received and pledged amounts are reflected at fair value, but have been limited to the net balance sheet exposure so as not to include any over-collateralization.

(4) Includes contractual rights of set-off that are subject to uncertainty under the laws of the relevant jurisdiction, exchange-traded derivatives and derivatives which are settled-to-market.

The offsetting and collateral arrangements discussed above and other credit risk mitigation strategies used by CIBC are further explained in the "Credit risk" section of the MD&A. Certain amounts of securities received as collateral are restricted from being sold or re-pledged.

Note 29 | Interest income and expense

The table below provides the consolidated interest income and expense by accounting categories.

		Interest income	Interest expense
\$ millions, for the year ended October 31			
2018	IFRS 9		
	Measured at amortized cost ⁽¹⁾	\$ 15,275	\$ 7,139
	Debt securities measured at FVOCI ⁽¹⁾	749	n/a
	Other ⁽²⁾	1,481	301
	Total	\$ 17,505	\$ 7,440
2017	IAS 39		
	Amortized cost and HTM ⁽¹⁾	\$ 11,712	\$ 4,359
	AFS debt securities ⁽¹⁾	480	n/a
	Other ⁽²⁾	1,401	257
	Total	\$ 13,593	\$ 4,616
2016	IAS 39		
	Amortized cost and HTM ⁽¹⁾	\$ 10,309	\$ 3,509
	AFS debt securities ⁽¹⁾	376	n/a
	Other ⁽²⁾	1,407	217
	Total	\$ 12,092	\$ 3,726

(1) Interest income for financial instruments that are measured at amortized cost and debt securities that are measured at FVOCI is calculated using the effective interest rate method.

(2) Includes interest income and expenses, and dividend income for financial instruments that are mandatorily measured and designated at FVTPL (2017 and 2016: Trading and FVO Securities), and equity securities designated at FVOCI (2017 and 2016: AFS equity securities).

n/a Not applicable.

Note 30 | Segmented and geographic information

CIBC has four SBUs – Canadian Personal and Small Business Banking, Canadian Commercial Banking and Wealth Management, U.S. Commercial Banking and Wealth Management, and Capital Markets. These SBUs are supported by Corporate and Other.

Canadian Personal and Small Business Banking provides personal and business clients across Canada with financial advice, products and services through a team in our banking centres, as well as through our direct, mobile and remote channels.

Canadian Commercial Banking and Wealth Management provides high-touch, relationship-oriented banking and wealth management services to middle-market companies, entrepreneurs, high-net-worth individuals and families across Canada. In addition, we provide asset management services to institutional investors.

U.S. Commercial Banking and Wealth Management provides high-touch, relationship-oriented commercial, personal and small business banking, as well as wealth management services to meet the needs of middle-market companies, executives, entrepreneurs, high-net-worth individuals and families in the markets we serve in the U.S.

Capital Markets provides integrated global markets products and services, investment banking advisory and execution, corporate banking and top-ranked research to corporate, government and institutional clients around the world.

Corporate and Other includes the following functional groups – Administration, Client Connectivity and Innovation, Finance, Human Resources and Communications, Internal Audit, Risk Management, and Technology and Operations, as well as other support groups. The expenses of these functional and support groups are generally allocated to the business lines within the SBUs. The functional and support costs of CIBC Bank USA are recognized directly in the U.S. Commercial Banking and Wealth Management SBU. Corporate and Other also includes the results of CIBC FirstCaribbean and other strategic investments, as well as other income statement and balance sheet items not directly attributable to the business lines.

Business unit allocations

Revenue, expenses, and other balance sheet resources related to certain activities are generally allocated to the lines of business within the SBUs.

Treasury activities impact the financial results of the SBUs. Each line of business within our SBUs is charged or credited with a market-based cost of funds on assets and liabilities, respectively, which impacts the revenue performance of the SBUs. Once the interest and liquidity risk inherent in our client-driven assets and liabilities is transfer priced into Treasury, it is managed within CIBC's risk framework and limits. The residual financial results associated with Treasury activities are reported in Corporate and Other, with the exception of certain Treasury activities in U.S. Commercial Banking and Wealth Management, which are reported in that SBU. Capital is attributed to the SBUs in a manner that is intended to consistently measure and align economic costs with the underlying benefits and risks associated with SBU activities. Earnings on unattributed capital remain in Corporate and Other. We review our transfer pricing methodologies on an ongoing basis to ensure they reflect changing market environments and industry practices.

To measure and report the results of operations of the lines of business within our Canadian Personal and Small Business Banking and Canadian Commercial Banking and Wealth Management SBUs, we use a Manufacturer/Customer Segment/Distributor Management Model. The model uses certain estimates and allocation methodologies to process internal payments between lines of business for sales, renewals and trailer commissions to facilitate preparation of segmented financial information. Periodically, the sales, renewals and trailer commission rates paid to customer segments for certain products/services are revised and applied prospectively.

Non-interest expenses incurred by our functional groups are attributed to the SBUs to which they relate based on appropriate criteria.

As part of our adoption of IFRS 9 on November 1, 2017, we now recognize provision for credit losses on both impaired (stage 3) and performing (stages 1 and 2) loans in the respective SBUs. Prior to November 1, 2017, provision for credit losses on performing loans was recognized in Corporate and Other, with the exception of provision for credit losses related to CIBC Bank USA, which was recognized in U.S. Commercial Banking and Wealth Management, and provision for credit losses on: (i) performing residential mortgages greater than 90 days delinquent; and (ii) performing personal loans and scored small business loans greater than 30 days delinquent, which was recognized in Canadian Personal and Small Business Banking.

Changes made to our business segments

2018

We adopted IFRS 9 effective November 1, 2017. As permitted, prior period amounts were not restated. See Note 1 for additional details. Our adoption of IFRS 9 impacted how provision for credit losses is attributed to our SBUs. See the "Business unit allocations" section above for additional details.

2017

The following external reporting changes were made in 2017. Prior period amounts were reclassified accordingly. The changes impacted the results of our SBUs, but there was no impact on prior period consolidated net income resulting from these reclassifications.

Fourth Quarter

Changes to our organizational structure

On June 20, 2017, we announced changes to CIBC's leadership team and organizational structure to further accelerate our transformation. As a result of these changes, our new reporting structure is as follows:

Canadian Personal and Small Business Banking – provides personal and small business clients across Canada with financial advice, products and services through a team of advisors in our banking centres, as well as through our direct, mobile and remote channels. Included in Canadian Personal and Small Business Banking are the following lines of business:

- Personal and small business banking; and
- Other.

Canadian Commercial Banking and Wealth Management – provides high-touch, relationship-oriented commercial and private banking, as well as wealth management services to meet the needs of middle-market companies, entrepreneurs, high-net-worth individuals and families, along with institutional clients across Canada. Included in Canadian Commercial Banking and Wealth Management are the following lines of business:

- Commercial banking; and
- Wealth management.

U.S. Commercial Banking and Wealth Management – provides high-touch, relationship-oriented commercial, personal and small business banking, as well as wealth management services to meet the needs of middle-market companies, executives, entrepreneurs, high-net-worth individuals and families in the markets we serve in the U.S. Included in U.S. Commercial Banking and Wealth Management are the following lines of business:

- Commercial banking;
- Wealth management; and
- Other.

Capital Markets – provides integrated global markets products and services, investment banking advisory and execution, corporate banking and top-ranked research to corporate, government and institutional clients around the world. Included in Capital Markets are the following lines of business:

- Global markets;
- Corporate and investment banking; and
- Other.

Corporate and Other – includes the following functional groups – Administration, Client Connectivity and Innovation, Finance, Human Resources and Communications, Internal Audit, Risk Management, and Technology and Operations, as well as other support groups. The expenses of these functional and support groups are generally allocated to the business lines within the SBUs. The functional and support costs of CIBC Bank USA are recognized directly in the expenses of U.S. Commercial Banking and Wealth Management. Corporate and Other also includes the results of CIBC FirstCaribbean and other strategic investments, as well as other income statement and balance sheet items not directly attributable to the business lines.

In addition to the above:

- The results of Geneva Advisors is included in the wealth management line of business within U.S. Commercial Banking and Wealth Management, after the close of the acquisition on August 31, 2017;
- The results of CIBC Investor's Edge, previously reported in Canadian Wealth Management, are now included in Canadian Personal and Small Business Banking; and
- The historical results of our minority investment in American Century Investments (ACI) sold in 2016 were reclassified from Canadian Wealth Management to Corporate and Other.

Changes to our transfer pricing methodology

The transfer pricing methodology used by Treasury to charge and credit the SBUs for the cost and benefit of funding assets and liabilities, respectively, was enhanced to better align to our liquidity risk models.

Third Quarter

U.S. Commercial Banking and Wealth Management

On June 23, 2017, we completed the acquisition of PrivateBancorp and its subsidiary, The PrivateBank, subsequently rebranded as CIBC Bank USA. As a result of the acquisition, a new U.S. Commercial Banking and Wealth Management SBU was created.

In addition to the results of CIBC Bank USA, U.S. Commercial Banking and Wealth Management includes:

- The results of CIBC Atlantic Trust Private Wealth Management (subsequently rebranded, see Note 26 for additional details) in the wealth management line of business, previously reported in the private wealth management line of business within the Wealth Management SBU; and
- The results of U.S. real estate finance in the commercial banking line of business, previously reported in the corporate and investment banking line of business within Capital Markets.

SBU name changes

Given the addition of the U.S. Commercial Banking and Wealth Management SBU, we changed the name of our Retail and Business Banking SBU to Canadian Retail and Business Banking, and the name of our Wealth Management SBU to Canadian Wealth Management. Further changes to our SBU structure were made in the fourth quarter, as noted above.

2016

The following external reporting changes were made in the first quarter of 2016. Prior period amounts were reclassified accordingly. The changes impacted the results of our SBUs, but there was no impact on consolidated net income resulting from these reclassifications.

- In the corporate and investment banking and business banking lines of business within Capital Markets and Canadian Retail and Business Banking, respectively, our client segmentation was redefined in a manner that reinforced our client-focused strategy, and resulted in a greater degree of industry specialization and expertise, while providing enhanced client coverage. We transferred client accounts accordingly between these lines of business.
- The transfer pricing methodology used by Treasury to charge and credit the SBUs for the cost and benefit of funding assets and liabilities, respectively, was enhanced to better align to our liquidity risk models.

In addition:

Within Capital Markets:

- Equity and debt underwriting revenue, previously shared between the global markets and corporate and investment banking lines of business, was transferred to be reported entirely within the corporate and investment banking line of business.

Within Canadian Wealth Management:

- The wealth advisory services business previously reported in the asset management line of business was transferred to the retail brokerage line of business.
- An "other" line of business was established to include the results of ACI, previously reported in the asset management line of business.

Results by reporting segments and geographic areas

	Canadian Personal and Small Business Banking	Canadian Commercial Banking and Wealth Management	U.S. Commercial Banking and Wealth Management	Capital Markets	Corporate and Other	CIBC Total	Canada ⁽¹⁾	U.S. ⁽¹⁾	Caribbean ⁽¹⁾	Other countries ⁽¹⁾
\$ millions, for the year ended October 31										
2018										
Net interest income ⁽²⁾	\$ 6,167	\$ 1,120	\$ 1,236	\$ 1,413	\$ 129	\$ 10,065	\$ 7,963	\$ 1,204	\$ 793	\$ 105
Non-interest income	1,976	3,219	530	1,487	557	7,769	6,030	895	567	277
Intersegment revenue ⁽³⁾	462	(474)	–	12	–	–	n/a	n/a	n/a	n/a
Total revenue	8,605	3,865	1,766	2,912	686	17,834	13,993	2,099	1,360	382
Provision for (reversal of) credit losses	741	5	79	(30)	75	870	740	57	75	(2)
Amortization and impairment ⁽⁴⁾	98	9	107	4	439	657	469	136	44	8
Other non-interest expenses	4,297	2,059	916	1,488	841	9,601	7,655	1,231	530	185
Income (loss) before income taxes	3,469	1,792	664	1,450	(669)	6,706	5,129	675	711	191
Income taxes ⁽²⁾	922	485	99	381	(465)	1,422	1,021	288	72	41
Net income (loss)	\$ 2,547	\$ 1,307	\$ 565	\$ 1,069	\$ (204)	\$ 5,284	\$ 4,108	\$ 387	\$ 639	\$ 150
Net income (loss) attributable to: Non-controlling interests Equity shareholders	\$ – 2,547	\$ – 1,307	\$ – 565	\$ – 1,069	\$ 17 (221)	\$ 17 5,267	\$ – 4,108	\$ – 387	\$ 17 622	\$ – 150
Average assets ⁽⁵⁾	\$ 259,130	\$ 55,713	\$ 42,028	\$ 166,231	\$ 75,339	\$ 598,441	\$ 476,224	\$ 80,935	\$ 31,101	\$ 10,181
2017										
Net interest income ⁽²⁾	\$ 5,752	\$ 984	\$ 545	\$ 1,647	\$ 49	\$ 8,977	\$ 7,829	\$ 449	\$ 639	\$ 60
Non-interest income	2,193	3,045	331	1,164	570	7,303	5,720	675	646	262
Intersegment revenue ⁽³⁾	427	(439)	–	12	–	–	n/a	n/a	n/a	n/a
Total revenue	8,372	3,590	876	2,823	619	16,280	13,549	1,124	1,285	322
Provision for (reversal of) credit losses	766	16	84	(4)	(33)	829	730	68	31	–
Amortization and impairment ⁽⁴⁾	87	9	33	5	408	542	431	64	39	8
Other non-interest expenses	4,261	2,012	501	1,368	887	9,029	7,534	805	518	172
Income (loss) before income taxes	3,258	1,553	258	1,454	(643)	5,880	4,854	187	697	142
Income taxes ⁽²⁾	838	415	55	364	(510)	1,162	928	88	110	36
Net income (loss)	\$ 2,420	\$ 1,138	\$ 203	\$ 1,090	\$ (133)	\$ 4,718	\$ 3,926	\$ 99	\$ 587	\$ 106
Net income (loss) attributable to: Non-controlling interests Equity shareholders	\$ – 2,420	\$ – 1,138	\$ – 203	\$ – 1,090	\$ 19 (152)	\$ 19 4,699	\$ – 3,926	\$ – 99	\$ 19 568	\$ – 106
Average assets ⁽⁵⁾	\$ 246,316	\$ 50,832	\$ 19,905	\$ 156,440	\$ 68,872	\$ 542,365	\$ 451,831	\$ 52,023	\$ 28,553	\$ 9,958
2016										
Net interest income ⁽²⁾	\$ 5,473	\$ 930	\$ 169	\$ 1,958	\$ (164)	\$ 8,366	\$ 7,639	\$ 64	\$ 577	\$ 86
Non-interest income	1,896	2,732	216	787	1,038	6,669	5,208	576	620	265
Intersegment revenue ⁽³⁾	379	(390)	–	11	–	–	n/a	n/a	n/a	n/a
Total revenue	7,748	3,272	385	2,756	874	15,035	12,847	640	1,197	351
Provision for (reversal of) credit losses	736	29	(2)	155	133	1,051	890	93	22	46
Amortization and impairment ⁽⁴⁾	91	13	14	5	339	462	374	46	35	7
Other non-interest expenses	4,023	1,877	274	1,323	1,012	8,509	7,295	556	473	185
Income (loss) before income taxes	2,898	1,353	99	1,273	(610)	5,013	4,288	(55)	667	113
Income taxes ⁽²⁾	738	362	12	281	(675)	718	616	(13)	87	28
Net income (loss)	\$ 2,160	\$ 991	\$ 87	\$ 992	\$ 65	\$ 4,295	\$ 3,672	\$ (42)	\$ 580	\$ 85
Net income (loss) attributable to: Non-controlling interests Equity shareholders	\$ – 2,160	\$ – 991	\$ – 87	\$ – 992	\$ 20 45	\$ 20 4,275	\$ – 3,672	\$ – (42)	\$ 20 560	\$ – 85
Average assets ⁽⁵⁾	\$ 222,642	\$ 46,555	\$ 8,423	\$ 154,805	\$ 76,715	\$ 509,140	\$ 420,432	\$ 53,694	\$ 27,599	\$ 7,415

(1) Net income and average assets are allocated based on the geographic location where they are recorded.

(2) U.S. Commercial Banking and Wealth Management and Capital Markets net interest income and income taxes include taxable equivalent basis (TEB) adjustments of \$2 million and \$278 million, respectively (2017: \$2 million and \$298 million, respectively; 2016: nil and \$474 million, respectively) with an equivalent offset in Corporate and Other.

(3) Intersegment revenue represents internal sales commissions and revenue allocations under the Manufacturer/Customer Segment/Distributor Management Model.

(4) Comprises amortization and impairment of buildings, furniture, equipment, leasehold improvements, and software and other intangible assets.

(5) Assets are disclosed on an average basis as this measure is most relevant to a financial institution and is the measure reviewed by management.

n/a Not applicable.

The following table provides a breakdown of revenue from our reporting segments:

\$ millions, for the year ended October 31	2018	2017 ⁽¹⁾	2016
Canadian Personal and Small Business Banking			
Personal and small business banking	\$ 8,556	\$ 8,033	\$ 7,675
Other	49	339	73
	\$ 8,605	\$ 8,372	\$ 7,748
Canadian Commercial Banking and Wealth Management			
Commercial banking	\$ 1,488	\$ 1,324	\$ 1,211
Wealth management	2,377	2,266	2,061
	\$ 3,865	\$ 3,590	\$ 3,272
U.S. Commercial Banking and Wealth Management ⁽²⁾			
Commercial banking	\$ 1,197	\$ 532	\$ 166
Wealth management	563	324	217
Other	6	20	2
	\$ 1,766	\$ 876	\$ 385
Capital Markets ⁽²⁾			
Global markets	\$ 1,674	\$ 1,601	\$ 1,645
Corporate and investment banking	1,229	1,216	1,093
Other	9	6	18
	\$ 2,912	\$ 2,823	\$ 2,756
Corporate and Other ⁽²⁾			
International banking	\$ 663	\$ 723	\$ 722
Other	23	(104)	152
	\$ 686	\$ 619	\$ 874

(1) Certain information has been reclassified to conform to the funds transfer pricing methodology adopted in the current year relating to CIBC Bank USA.

(2) U.S. Commercial Banking and Wealth Management and Capital Markets revenue includes a TEB adjustment of \$2 million and \$248 million, respectively (2017: \$2 million and \$298 million, respectively; 2016: nil and \$474 million, respectively) with an equivalent offset in Corporate and Other.

Note 31 | Future accounting policy changes

IFRS 15 "Revenue From Contracts with Customers" (IFRS 15)

IFRS 15 – issued in May 2014, replaces prior guidance, including IAS 18 "Revenue" and IFRIC 13 "Customer Loyalty Programmes". In April 2016, the IASB issued amendments to the standard that clarified specific guidance and provided additional transitional relief. IFRS 15 is effective for annual periods beginning on or after January 1, 2018, which for us will be on November 1, 2018, and can be applied on a retrospective basis or using a modified retrospective approach. As permitted, we will adopt IFRS 15 using the modified retrospective approach by recognizing the cumulative effect of initial application in opening retained earnings as of the effective date. Use of the modified retrospective approach will require us to provide additional disclosures in the year of adoption.

The new guidance includes a five-step, principles-based recognition and measurement approach, as well as requirements for accounting for contract costs, and enhanced quantitative and qualitative disclosure requirements. IFRS 15 excludes from its scope revenue related to lease contracts, insurance contracts and financial instruments. As a result, the majority of our revenue will not be impacted by the adoption of this standard, including net interest income.

IFRS 15 will result in the upfront expensing of previously deferred mutual fund sales commissions. In addition, our credit card loyalty points liability will be subject to both upward and downward remeasurement to reflect the expected cost of redemption as this expectation changes over time. Under IFRIC 13, decreases in the expected cost of redemptions were only recognized as points were redeemed, while increases were recognized immediately.

In addition, the adoption of IFRS 15 will result in changes to the presentation and timing of certain revenue and expense items in the consolidated statement of income. Presentation differences are not expected to be material and include the net presentation of certain expenditures where CIBC is deemed the agent rather than the principal and the gross presentation of certain expenditures where CIBC is deemed the principal rather than the agent.

The cumulative impact that will be recognized in November 1, 2018 opening retained earnings from these differences is not significant.

IFRS 16 "Leases" (IFRS 16)

IFRS 16 – issued in January 2016, replaces IAS 17 "Leases" and is effective for annual periods beginning on or after January 1, 2019, which for us will be on November 1, 2019. Early application is permitted if IFRS 15 has also been applied. For lessees, the new standard will result in on-balance sheet recognition for many leases that are considered operating leases under IAS 17, including our property leases, which will result in the gross-up of the balance sheet through the recognition of a right-of-use asset and a liability for the lease component of the future payments. Depreciation expense on the right-of-use asset and interest expense on the lease liability will replace the operating lease expense. The accounting for leases by lessors remains mostly unchanged from IAS 17.

We continue to evaluate the impact of IFRS 16 on our consolidated financial statements.

IFRS 17 "Insurance Contracts" (IFRS 17)

IFRS 17 – issued in May 2017, replaces IFRS 4 "Insurance Contracts", and was originally effective for annual periods beginning on or after January 1, 2021, which for us is on November 1, 2021. In November 2018, the IASB tentatively decided to defer the effective date from reporting periods beginning on or after January 1, 2021 to January 1, 2022. IFRS 17 provides comprehensive guidance on the recognition, measurement, presentation and disclosures of insurance contracts. In May 2018, OSFI issued a final advisory "IFRS 17 Transition and Progress Report Requirements for Federally Regulated Insurers", which provides pre-transition and transition guidance, including prohibiting early adoption of IFRS 17 by federally regulated insurance subsidiaries.

We continue to evaluate the impact of IFRS 17 on our consolidated financial statements.