Consolidated Balance Sheets

[in millions of Canadian dollars]	December 31, 2019	December 31, 2018
Assets		
Cash and cash equivalents [Note 5]	6,272	5,624
Investments [Note 6]		
Bonds	115,127	125,069
Mortgage and other loans	31,445	32,717
Shares	10,188	9,246
Investment properties	5,887	5,218
Loans to policyholders	8,601	8,929
	171,248	181,179
Assets held for sale [Note 4]	–	897
Funds held by ceding insurers [Note 7]	8,714	9,251
Reinsurance assets [Note 13]	20,707	6,126
Derivative financial instruments [Note 26]	472	433
Investments in jointly controlled corporations and associates [Note 8]	4,902	4,009
Owner-occupied properties and capital assets [Note 9]	1,885	1,331
Other assets [Note 10]	10,293	9,118
Deferred tax assets [Note 17]	775	1,066
Intangible assets [Note 11]	5,172	5,229
Goodwill [Note 11]	9,910	9,946
Investments on account of segregated fund policyholders [Note 12]	231,022	209,527
Investments on account of segregated fund policyholders held for sale [Note 4]	–	3,319
Total assets	471,372	447,055
Liabilities		
Insurance contract liabilities [Note 13]	174,521	166,720
Investment contract liabilities [Note 13]	1,656	1,711
Liabilities held for sale [Note 4]	–	897
Obligations to securitization entities [Note 14]	6,914	7,370
Debentures and other debt instruments [Note 15]	8,250	8,492
Derivative financial instruments [Note 26]	1,398	1,593
Other liabilities [Note 16]	12,470	10,960
Deferred tax liabilities [Note 17]	1,429	1,517
Insurance and investment contracts on account of segregated fund policyholders [Note 12]	231,022	209,527
Insurance and investment contracts on account of segregated fund policyholders held for sale [Note 4]	–	3,319
Total liabilities	437,660	412,106
Equity		
Stated capital [Note 18]		
Perpetual preferred shares	2,830	2,830
Common shares	1,292	833
Retained earnings	14,608	15,967
Reserves	2,085	1,950
Total shareholders' equity	20,815	21,580
Non-controlling interests [Note 20]	12,897	13,369
Total equity	33,712	34,949
Total liabilities and equity	471,372	447,055

Approved by the Board of Directors

Signed,
Siim A. Vanaselja
Director

Signed,
R. Jeffrey Orr
Director

Consolidated Statements of Earnings

For the years ended December 31 [in millions of Canadian dollars, except per share amounts]	2019	2018
Revenues		
Premium income		
Gross premiums written [Note 13]	43,245	39,963
Ceded premiums	(18,756)	(4,523)
Total net premiums	24,489	35,440
Net investment income [Note 6]		
Regular net investment income	6,260	6,426
Change in fair value through profit or loss	6,987	(3,604)
Net investment income	13,247	2,822
Fee income	10,066	8,763
Total revenues	47,802	47,025
Expenses		
Policyholder benefits		
Gross [Note 13]	37,769	32,357
Ceded	(2,916)	(2,445)
Total net policyholder benefits	34,853	29,912
Changes in insurance and investment contract liabilities		
Gross	10,155	441
Ceded	(13,479)	61
Total net changes in insurance and investment contract liabilities	(3,324)	502
Policyholder dividends and experience refunds	1,562	1,654
Total paid or credited to policyholders	33,091	32,068
Commissions	3,480	3,512
Operating and administrative expenses [Note 23]	7,237	6,997
Financing charges [Note 24]	435	360
Total expenses	44,243	42,937
Earnings before investments in jointly controlled corporations and associates, and income taxes	3,559	4,088
Share of earnings of investments in jointly controlled corporations and associates [Note 8]	211	94
Earnings before income taxes	3,770	4,182
Income taxes [Note 17]	601	602
Net earnings	3,169	3,580
Attributable to		
Non-controlling interests [Note 20]	1,066	1,197
Perpetual preferred shareholders	139	138
Common shareholders	1,964	2,245
	3,169	3,580
Earnings per common share [Note 29]		
Net earnings attributable to common shareholders		
– Basic	2.89	3.15
– Diluted	2.89	3.14

Consolidated Statements of Comprehensive Income

For the years ended December 31 [in millions of Canadian dollars]	2019	2018
Net earnings	3,169	3,580
Other comprehensive income (loss)		
Items that may be reclassified subsequently to net earnings		
Net unrealized gains (losses) on available-for-sale investments		
Unrealized gains (losses)	236	(78)
Income tax (expense) benefit	(37)	19
Realized (gains) losses transferred to net earnings	(96)	6
Income tax expense (benefit)	9	(1)
	112	(54)
Net unrealized gains (losses) on cash flow hedges		
Unrealized gains (losses)	9	14
Income tax (expense) benefit	(1)	(2)
Realized (gains) losses transferred to net earnings	–	(69)
Income tax expense (benefit)	–	17
	8	(40)
Net unrealized foreign exchange gains (losses) on translation of foreign operations		
Unrealized gains (losses) on translation	(564)	779
Unrealized gains (losses) on euro debt designated as hedge of net investments in foreign operations	100	(50)
Income tax (expense) benefit	(14)	6
	(478)	735
Share of other comprehensive income (losses) of investments in jointly controlled corporations and associates	504	(20)
Income tax (expense) benefit	5	(2)
	509	(22)
Total – items that may be reclassified	151	619
Items that will not be reclassified subsequently to net earnings		
Actuarial gains (losses) on defined benefit plans [Note 25]	(257)	23
Income tax (expense) benefit	54	1
Share of other comprehensive income (losses) of investments in jointly controlled corporations and associates	(6)	2
Total – items that will not be reclassified	(209)	26
Other comprehensive income (loss)	(58)	645
Comprehensive income	3,111	4,225
Attributable to		
Non-controlling interests	902	1,371
Perpetual preferred shareholders	139	138
Common shareholders	2,070	2,716
	3,111	4,225

Consolidated Statements of Changes in Equity

For the year ended December 31, 2019 [in millions of Canadian dollars]	Stated capital			Reserves				
	Perpetual preferred shares	Common shares	Retained earnings	Share-based compensation	Other comprehensive income [Note 28]	Total	Non-controlling interests	Total equity
Balance, beginning of year								
As previously reported	2,830	833	15,967	162	1,788	1,950	13,369	34,949
Change in accounting policies [Note 2]								
Impact of IFRS 16	–	–	(3)	–	–	–	(3)	(6)
Impact of IFRIC 23	–	–	(77)	–	–	–	(32)	(109)
Restated balance, beginning of year	2,830	833	15,887	162	1,788	1,950	13,334	34,834
Net earnings	–	–	2,103	–	–	–	1,066	3,169
Other comprehensive income (loss)	–	–	–	–	106	106	(164)	(58)
Comprehensive income	–	–	2,103	–	106	106	902	3,111
Substantial issuer bid on common shares [Note 18]	–	459	(2,109)	–	–	–	–	(1,650)
Dividends to shareholders								
Perpetual preferred shares	–	–	(139)	–	–	–	–	(139)
Common shares	–	–	(1,233)	–	–	–	–	(1,233)
Dividends to non-controlling interests	–	–	–	–	–	–	(770)	(770)
Share-based compensation [Note 19]	–	–	–	40	–	40	15	55
Stock options exercised	–	–	–	(25)	–	(25)	25	-
Effects of changes in capital and ownership of subsidiaries, and other [1]	–	–	99	24	(10)	14	(609)	(496)
Balance, end of year	2,830	1,292	14,608	201	1,884	2,085	12,897	33,712

[1] Effects of changes in capital and ownership of subsidiaries relate to the impact of the purchase for cancellation of common shares by Lifeco under its substantial issuer bid and the issuance and the repurchase of common and preferred shares by subsidiaries (Note 20).

For the year ended December 31, 2018 [in millions of Canadian dollars]	Stated capital			Reserves				
	Perpetual preferred shares	Common shares	Retained earnings	Share-based compensation	Other comprehensive income [Note 28]	Total	Non-controlling interests	Total equity
Balance, beginning of year	2,830	826	15,021	159	1,317	1,476	12,814	32,967
Net earnings	–	–	2,383	–	–	–	1,197	3,580
Other comprehensive income	–	–	–	–	471	471	174	645
Comprehensive income	–	–	2,383	–	471	471	1,371	4,225
Dividends to shareholders								
Perpetual preferred shares	–	–	(138)	–	–	–	–	(138)
Common shares	–	–	(1,237)	–	–	–	–	(1,237)
Dividends to non-controlling interests	–	–	–	–	–	–	(764)	(764)
Share-based compensation [Note 19]	–	–	–	34	–	34	13	47
Stock options exercised	–	7	–	(31)	–	(31)	31	7
Effects of changes in capital and ownership of subsidiaries, and other	–	–	(62)	–	–	–	(96)	(158)
Balance, end of year	2,830	833	15,967	162	1,788	1,950	13,369	34,949

Consolidated Statements of Cash Flows

For the years ended December 31 [in millions of Canadian dollars]	2019	2018
Operating activities		
Earnings before income taxes	3,770	4,182
Income tax paid, net of refunds	(474)	(562)
Adjusting items		
Change in insurance and investment contract liabilities	10,412	(379)
Change in funds held by ceding insurers	570	663
Change in reinsurance assets	(900)	51
Change in fair value through profit or loss	(6,987)	3,604
Other	317	(430)
	6,708	7,129
Financing activities		
Dividends paid		
By subsidiaries to non-controlling interests	(774)	(764)
Perpetual preferred shares	(139)	(138)
Common shares	(1,239)	(1,222)
	(2,152)	(2,124)
Issue of common shares by the Corporation [Note 18]	–	7
Issue of common shares and limited-life fund units by subsidiaries	194	61
Repurchase of common shares for cancellation under substantial issuer bid [Note 18]	(1,650)	–
Repurchase of common shares by subsidiaries	(434)	(74)
Redemption of preferred shares by subsidiaries	(150)	–
Issue of debentures and senior notes [Note 15]	250	1,712
Redemption of debentures [Note 15]	(232)	(1,621)
Increase in other debt instruments [Note 15]	1	38
Decrease in other debt instruments [Note 15]	(39)	(1)
Repayment of lease liabilities [Note 16]	(73)	–
Increase in obligations to securitization entities	1,456	1,772
Repayments of obligations to securitization entities and other	(2,043)	(2,048)
	(4,872)	(2,278)
Investment activities		
Bond sales and maturities	25,304	25,218
Mortgage and other loan repayments	4,744	4,704
Sale of shares	2,910	3,033
Sale of investment properties	5	63
Change in loans to policyholders	16	(208)
Proceeds from assets held for sale [Note 4]	–	169
Business acquisitions, net of cash and cash equivalents acquired [Note 3]	(12)	(279)
Cash and cash equivalents related to transfer of business [Note 4]	(4)	–
Cash and cash equivalents classified as held for sale [Note 4]	–	(112)
Investment in bonds	(25,128)	(26,670)
Investment in mortgage and other loans	(5,498)	(5,994)
Investment in shares	(2,544)	(4,209)
Investments in jointly controlled corporations and associates [Note 8]	(123)	(15)
Investment in investment properties and other	(728)	(414)
	(1,058)	(4,714)
Effect of changes in exchange rates on cash and cash equivalents	(130)	166
Increase in cash and cash equivalents	648	303
Cash and cash equivalents, beginning of year	5,624	5,321
Cash and cash equivalents, end of year	6,272	5,624
Net cash from operating activities includes		
Interest and dividends received	5,729	5,920
Interest paid	592	591

Notes to the Consolidated Financial Statements

(ALL TABULAR AMOUNTS ARE IN MILLIONS OF CANADIAN DOLLARS, UNLESS OTHERWISE NOTED.)

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The following abbreviations are used in these Consolidated Financial Statements:

CALM	Canadian Asset Liability Method
Canada Life	The Canada Life Assurance Company
China AMC	China Asset Management Co., Ltd.
Great-West Life	The Great-West Life Assurance Company
Great-West Life & Annuity	Great-West Life & Annuity Insurance Company
IFRS	International Financial Reporting Standards
IGM or IGM Financial	IGM Financial Inc.
IG Wealth Management	Investors Group Inc.
Irish Life	Irish Life Group Limited
Lifeco	Great-West Lifeco Inc.
London Life	London Life Insurance Company
Mackenzie or Mackenzie Investments	Mackenzie Financial Corporation
Pargesa	Pargesa Holding SA
Parjointco	Parjointco N.V.
Personal Capital	Personal Capital Corporation
Portag3	Portag3 Ventures LP
Portag3 II	Portag3 Ventures II LP
Power Corporation	Power Corporation of Canada
Power Financial or the Corporation	Power Financial Corporation
Putnam	Putnam Investments, LLC
Wealthsimple	Wealthsimple Financial Corp.

NOTE 1 Corporate Information

Power Financial Corporation, a reporting issuer in all of the provinces and territories of Canada, is incorporated and domiciled in Canada and located at 751 Victoria Square, Montréal, Québec, Canada, H2Y 2J3.

Power Financial is an international management and holding company with interests in financial services and asset management businesses in Canada, the United States and Europe. It also has significant holdings in a portfolio of global companies based in Europe.

The Consolidated Financial Statements (financial statements) of Power Financial as at and for the year ended December 31, 2019 were approved by its Board of Directors on March 18, 2020. The Corporation is controlled by Power Corporation of Canada.

NOTE 2 Basis of Presentation and Summary of Significant Accounting Policies

BASIS OF PRESENTATION

The financial statements of Power Financial as at December 31, 2019 have been prepared in accordance with International Financial Reporting Standards.

The financial statements include the accounts of Power Financial and its subsidiaries on a consolidated basis after elimination of intercompany transactions and balances, and certain consolidation adjustments.

SUBSIDIARIES

Subsidiaries are entities the Corporation controls when: (i) the Corporation has power over the entity; (ii) it is exposed or has rights to variable returns from its involvement; and (iii) it has the ability to affect those returns through its use of power over the entity. Subsidiaries of the Corporation are consolidated from the date of acquisition, being the date on which the Corporation obtains control, and continue to be consolidated until the date such control ceases. The Corporation reassesses whether or not it controls an entity if facts and circumstances indicate there are changes to one or more of the elements of control listed above.

The principal operating subsidiaries of the Corporation are:

		% equity interest	
Corporations	Primary business operation	December 31, 2019	December 31, 2018
Great-West Lifeco Inc. [1][2]	Financial services holding company with interests in insurance and wealth management companies	70.9	71.8
IGM Financial Inc. [3][4]	Wealth and asset management	66.0	65.2
Portag3 Ventures LP [5]	Backing of innovative financial services companies	100.0	100.0
Portag3 Ventures II LP [6]	Focusing on early stage investments in the global technology sector	23.2	47.0
Wealthsimple Financial Corp. [7]	Technology-driven investment manager	84.9	81.7

[1] Power Financial holds a 66.9% equity interest and IGM Financial holds a 4.0% equity interest in Lifeco (67.8% and 4.0%, respectively, at December 31, 2018).

[2] Lifeco's principal operating subsidiary companies are Great-West Life, Great-West Life & Annuity, London Life, Canada Life, Irish Life and Putnam. As of January 1, 2020, Great-West Life, London Life and Canada Life amalgamated into a single company: Canada Life.

[3] Power Financial holds a 62.1% equity interest and Great-West Life holds a 3.9% equity interest in IGM Financial (61.4% and 3.8%, respectively, at December 31, 2018).

[4] IGM's principal operating subsidiary companies are IG Wealth Management and Mackenzie.

[5] Power Financial holds a 63.0% equity interest and Lifeco and IGM Financial each hold an equity interest of 18.5% in Portag3 (same at December 31, 2018).

[6] Power Financial, Lifeco and IGM Financial each hold an equal equity interest of 7.7% in Portag3 II (15.7% at December 31, 2018).

[7] Power Financial, Portag3 and IGM Financial hold an equity interest of 21.2%, 16.8% and 46.9%, respectively, in Wealthsimple (16.0%, 21.9% and 43.8%, respectively, at December 31, 2018).

On April 17, 2019, Lifeco completed a substantial issuer bid (the Lifeco SIB) and purchased for cancellation 59,700,974 of its common shares at a purchase price of $33.50 per common share. The Corporation participated in the Lifeco SIB by tendering its Lifeco common shares on a proportionate basis and on a non-proportionate basis. The decrease in ownership in Lifeco resulted in a dilution gain of $108 million recorded in retained earnings and other comprehensive income reserve with a corresponding decrease in non-controlling interests in the statements of changes in equity. IGM Financial also participated on a proportionate basis in the Lifeco SIB.

The financial statements of Power Financial include, on a consolidated basis, the results of Lifeco and IGM Financial, both public companies. The amounts shown on the consolidated balance sheets, consolidated statements of earnings, consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows are mainly derived from the publicly disclosed consolidated financial statements of Lifeco and IGM Financial, all as at and for the year ended December 31, 2019. Certain notes to Power Financial's financial statements are derived from the notes to the financial statements of Lifeco and IGM Financial.

NOTE 2 Basis of Presentation and Summary of Significant Accounting Policies (continued)

JOINTLY CONTROLLED CORPORATIONS AND ASSOCIATES

Jointly controlled corporations are entities in which unanimous consent is required for decisions relating to relevant activities. Associates are entities in which the Corporation exercises significant influence over the entity's operating and financial policies, without having control or joint control. Investments in jointly controlled corporations and associates are accounted for using the equity method. Under the equity method, the Corporation recognizes its share of net earnings (losses), other comprehensive income (loss), the changes in equity of the jointly controlled corporations and associates, and dividends received.

The principal jointly controlled corporations and associates of the Corporation are:

			% equity interest	
Corporations	Classification	Primary business operation	2019	2018
Parjointco N.V. [1]	Joint control	Holding company	50.0	50.0
China Asset Management Co., Ltd. [2]	Associate	Asset management company	13.9	13.9

[1] Parjointco N.V. holds a 55.5% (same at December 31, 2018) equity interest in Pargesa Holding SA.

[2] Held by IGM Financial.

CHANGE IN ACCOUNTING POLICIES

IFRS 16 – LEASES (IFRS 16)

Effective January 1, 2019, the Corporation adopted IFRS 16, which replaces IAS 17, *Leases* (IAS 17) and related interpretations. The standard prescribes new guidance for identifying a lease as well as the recognition, measurement, presentation and disclosure of leases. IFRS 16 requires a lessee to recognize a right-of-use asset representing its right to use the leased asset and a corresponding lease liability representing its obligation to make lease payments for all leases. The distinction between operating and financing leases no longer applies, however an optional exemption is available for short-term and low-value leases.

Impact of transition to IFRS 16

The Corporation has elected to adopt IFRS 16 using a modified retrospective approach and accordingly the information presented for 2018 remains as previously reported under IAS 17 and related interpretations.

On initial application, the Corporation elected to measure right-of-use assets on a lease-by-lease basis at either i) an amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognized on the balance sheets immediately before the date of initial application; or ii) at its carrying amount as if IFRS 16 had been applied since the commencement date but discounted using the Corporation's incremental borrowing rate at January 1, 2019. When measuring lease liabilities, the Corporation and its subsidiaries discounted lease payments using their respective incremental borrowing rates at January 1, 2019. The weighted-average incremental borrowing rate was 3.95% at January 1, 2019.

On transition, the Corporation and its subsidiaries elected to apply practical expedients including: i) to not recognize right-of-use assets and lease liabilities for leases for which the remaining lease terms end within twelve months of the date of transition; and ii) to apply a single discount rate to a portfolio of leases with reasonably similar characteristics.

NOTE 2 Basis of Presentation and Summary of Significant Accounting Policies (continued)

Impact on the balance sheet as at January 1, 2019:

	December 31, 2018 (as previously reported)	Impact of IFRS 16	January 1, 2019 (restated)
Assets			
Investment properties	5,218	29	5,247
Owner-occupied properties and capital assets	1,331	560	1,891
		589	
Liabilities and shareholders' equity			
Other liabilities [1]	10,960	597	11,557
Deferred tax liabilities	1,517	(2)	1,515
Retained earnings	15,967	(3)	15,964
Non-controlling interests	13,369	(3)	13,366
		589	

[1] Accrued lease payments of $64 million within other liabilities on the balance sheet at December 31, 2018 were reclassified to decrease right-of-use assets.

The following table reconciles the Corporation and its subsidiaries' operating lease obligations at December 31, 2018, as previously disclosed in the Corporation's consolidated financial statements, to the lease liabilities recognized on initial application of IFRS 16 at January 1, 2019:

Operating lease commitments at December 31, 2018	1,039
Discounting using the incremental borrowing rate at January 1, 2019	(186)
Non-lease components included in operating lease commitments	(127)
Leases not yet commenced at January 1, 2019 included in operating lease commitments	(59)
Short-term leases included in operating lease commitments	(6)
Low-value leases included in operating lease commitments	(6)
Renewal options not included in operating lease commitments	6
Lease liabilities recognized at January 1, 2019	661

The application of IFRS 16 did not have a material impact on the statement of earnings or the statement of cash flows for the year ended December 31, 2019, except for the classification of lease payments as financing activities instead of operating activities. The adoption of IFRS 16 did not have an impact on net cash flows.

IFRIC 23 – UNCERTAINTY OVER INCOME TAX TREATMENTS (IFRIC 23)

Effective January 1, 2019, the Corporation adopted IFRIC 23 which clarifies the application of the recognition and measurement requirements in IAS 12, *Income Taxes,* when there is uncertainty over income tax treatments. Under IFRIC 23, a provision for tax uncertainties which meets the probable threshold for recognition is measured based on the amount most likely to occur. The provision for tax uncertainties is classified as current or deferred based on how a disallowance of the underlying uncertain tax treatment would impact the tax provision accrual as of the balance sheet date. The application of the interpretation of the standard resulted in a decrease of $109 million to Lifeco's retained earnings. The Corporation's share of this impact is $77 million.

NOTE 2 Basis of Presentation and Summary of Significant Accounting Policies (continued)

USE OF SIGNIFICANT JUDGMENTS, ESTIMATES AND ASSUMPTIONS

In the preparation of the financial statements, management of the Corporation and management of its subsidiaries are required to make significant judgments, estimates and assumptions that affect the reported amounts of assets, liabilities, net earnings, comprehensive income and related disclosures. Key sources of estimation, uncertainty and areas where significant judgments have been made by the management of the Corporation and the management of its subsidiaries are listed below and are discussed throughout the notes in these financial statements, including:

Item or balance affected by judgments or estimates	Applied by	Key judgments or estimates	Corresponding note(s)
Evaluation of control	Management of the Corporation and of its subsidiaries	Determining if the Corporation has the ability to direct the relevant activities of the subsidiaries or other structured entities in order to derive variable returns. Judgment is exercised in evaluating the variable returns and in determining the extent to which the Corporation has the ability to exercise power to affect variable returns.	n/a
Evaluation of significant influence and joint control	Management of the Corporation and of its subsidiaries	Determining if the Corporation exercises significant influence over the entity's operating and financing policies, or if unanimous consent is required for decisions relating to relevant activities.	n/a
Evaluation of disposal group	Management of Lifeco	Determining the assets and liabilities to be included in the disposal group requires judgment and the fair value of the disposal group requires estimation.	4
Classification of insurance and reinsurance contracts	Management of Lifeco	Determining whether arrangements should be accounted for as insurance, investment or service contracts.	13
Valuation of insurance and certain investment contract liabilities in accordance with CALM	Management of Lifeco	Determining the actuarial assumptions, including interest rates, inflation, policyholder behaviour, mortality and morbidity of policyholders.	13
Provision for future credit losses within certain insurance contract liabilities	Management of Lifeco	The provision for future credit losses within insurance contract liabilities is based on investment credit ratings. Lifeco's practice is to use third-party independent credit ratings where available. Judgment is required when setting credit ratings for instruments that do not have a third-party rating.	13
Fair value of financial instruments	Management of the Corporation and of its subsidiaries	Determining fair value inputs to establish the fair value of financial instruments, particularly those items categorized within Level 3 of the fair value hierarchy.	27
Fair value of equity-release mortgages	Management of Lifeco	Internal valuation models are used to determine the fair value of equity-release mortgages. These valuations are adjusted by applying management judgments and estimates for material changes in projected asset cash flows and discount rates.	6
Fair value of investment properties	Management of Lifeco	Independent qualified appraisal services are used to determine the fair value of investment properties, which use assumptions that include judgments and estimates. These appraisals are adjusted by applying management's judgments and estimates for material changes in property cash flows, capital expenditures or general market conditions.	6

NOTE 2 Basis of Presentation and Summary of Significant Accounting Policies (continued)

Item or balance affected by judgments or estimates	Applied by	Key judgments or estimates	Corresponding note(s)
Initial recognition and measurement of goodwill and intangible assets, as well as subsequent measurement	Management of the Corporation and of its subsidiaries	Evaluating the synergies and future benefits in business combinations for initial recognition and measurement of goodwill and intangible assets as well as determining the recoverable amount. The determination of the recoverable amount of the cash generating units (to which goodwill and intangible assets are assigned) relies upon valuation methodologies that require the use of estimates.	3, 11
Determination of cash generating unit groupings	Management of the Corporation and of its subsidiaries	Determining the cash generating unit groupings as the lowest level at which the assets are monitored for internal reporting purposes.	11
Measurement of the pension and other post-employment benefit obligations	Management of the Corporation and of its subsidiaries	Determining the actuarial assumptions used to determine the expense and defined benefit obligations for pension plans and other post-employment benefits. Management reviews the previous experience of related plan members and market conditions, including interest rates and inflation rates, in evaluating the assumptions used in determining the expense for the current year.	25
Recognition and measurement of tax provisions and tax assets and liabilities	Management of the Corporation and of its subsidiaries	Interpreting the relevant tax laws, regulations and legislation where the Corporation and its subsidiaries operate to determine the tax provisions and the carrying amounts of the tax assets and liabilities.	17
Recoverability of deferred tax asset carrying values	Management of the Corporation and of its subsidiaries	Assessing the recoverability of the deferred tax asset carrying values based on future years' taxable income projections.	17
Recognition and measurement of legal and other provisions	Management of the Corporation and of its subsidiaries	Assessing whether a past event will result in a probable outflow of economic resources to settle the obligation. Judgment is used in evaluating the possible outcomes and risks to determine the best estimate of the provision at the balance sheet date.	31
Derecognition of securitization mortgages	Management of IGM	Determining whether securitized mortgages are derecognized requires judgment with respect to the extent to which the risks and rewards of ownership are transferred.	14
Classification of purchases and sales of portfolio investments in the statements of cash flows	Management of Lifeco	Determining if purchases and sales of portfolio investments are long term in nature, which would result in recording them within investment activities in the consolidated statements of cash flows.	n/a
Classification of revenues and expenses in sub-advisor arrangements	Management of Lifeco	Determining whether Lifeco retains the primary obligation with a client in sub-advisor arrangements. Where Lifeco retains the primary obligation to the client, revenues and expenses are recorded on a gross basis.	n/a
Deferred selling commissions	Management of IGM	Determining whether the client or the fund is the customer, as well as the assessment of the recoverability of the deferred selling commissions.	10
Deferred acquisition costs	Management of Lifeco	Determining whether deferred acquisition costs can be recognized on the consolidated balance sheets. Deferred acquisition costs are recognized if Lifeco's management determines the costs meet the definition of an asset and are incremental and related to the issuance of the investment contract.	10

NOTE 2 Basis of Presentation and Summary of Significant Accounting Policies (continued)

SIGNIFICANT ACCOUNTING POLICIES

REVENUE RECOGNITION

Interest income is accounted for on an accrual basis using the effective interest method for bonds and mortgage and other loans. Dividend income is recognized when the right to receive payment is established. This is the ex-dividend date for listed shares and usually the notification date or date when the shareholders have approved the dividend for private equity instruments. Interest income and dividend income are recorded in net investment income in the Consolidated Statements of Earnings (statements of earnings).

Lifeco

Premiums for all types of insurance contracts and contracts with limited mortality or morbidity risk are generally recognized as revenue when due and collection is reasonably assured.

Investment property income includes rents earned from tenants under lease agreements and property tax and operating cost recoveries. Leases with contractual rent increases and rent-free periods are recognized on a straight-line basis over the term of the lease. Investment property income is included in net investment income in the statements of earnings.

Fee income primarily includes fees earned from the management of segregated fund assets, proprietary mutual fund assets, record keeping, fees earned on administrative services only for Group health contracts, commissions and fees earned from management services. Fee income is recognized on the transfer of services to customers for the amount that reflects the consideration expected to be received in exchange for those services promised.

Lifeco has sub-advisor arrangements where Lifeco retains the primary obligation with the client. As a result, fee income earned is reported on a gross basis, with the corresponding sub-advisor expense recorded in operating and administrative expenses.

IGM Financial

Management fees are based on the net asset value of the investment fund or other assets under management and are recognized on an accrual basis as the service is performed. Administration fees are recognized on an accrual basis as the service is performed. Distribution fees derived from investment fund and securities transactions are recognized on a trade-date basis. Distribution fees derived from insurance and other financial services transactions are recognized on an accrual basis. Consideration is collected within a short period from the date of revenue recognition of the associated services. Management, administration and distribution fees are included in fee income in the statements of earnings.

CASH AND CASH EQUIVALENTS

Cash and cash equivalents include cash, current operating accounts, overnight bank and term deposits and fixed income securities with an original term to maturity of three months or less.

INVESTMENTS

Investments include bonds, mortgage and other loans, shares, investment properties, and loans to policyholders of Lifeco. Investments are classified as either fair value through profit or loss, available for sale, held to maturity, loans and receivables, or as non-financial instruments based on management's intention relating to the purpose and nature of the instruments or the characteristics of the investments. The Corporation and its subsidiaries currently have not classified any investments as held to maturity.

A financial asset is designated as fair value through profit or loss on initial recognition if it eliminates or significantly reduces an accounting mismatch or if a financial asset is managed and its performance is evaluated on a fair value basis. For Lifeco, changes in the fair value of financial assets designated as fair value through profit or loss are generally offset by changes in insurance contract liabilities, since the measurement of insurance contract liabilities is determined with reference to the assets supporting the liabilities.

A financial asset is classified as fair value through profit or loss on initial recognition if it is part of a portfolio that is actively traded for the purpose of earning investment income.

NOTE 2 Basis of Presentation and Summary of Significant Accounting Policies (continued)

Investments in mortgage and other loans are initially classified with respect to the intent of the loan on origination.

Investments in bonds (including fixed income securities), mortgage and other loans and shares actively traded on a public market or where fair value can be reliably measured are either designated or classified as fair value through profit or loss or classified as available for sale and are recorded on a trade-date basis. Equity-release mortgages are designated as fair value through profit or loss.

Fair value through profit or loss investments are recorded at fair value on the Consolidated Balance Sheets (balance sheets) with realized and unrealized gains and losses reported in the statements of earnings. Available-for-sale investments are recorded at fair value on the balance sheets with unrealized gains and losses recorded in other comprehensive income. Realized gains and losses are reclassified from other comprehensive income and recorded in net investment income in the statements of earnings when the available-for-sale investment is sold or impaired.

Investments in mortgage and other loans and bonds not actively traded on a public market are classified as loans and receivables and are carried at amortized cost net of any allowance for credit losses. Interest income earned, impairments and realized gains and losses on the sale of investments classified as loans and receivables are recorded in net investment income in the statements of earnings.

Investment properties consist of real estate held to earn rental income or for capital appreciation that have an insignificant portion that is owner-occupied or where there is no intent to occupy on a long-term basis. Properties that do not meet these criteria are classified as owner-occupied properties. Investment properties are initially measured at cost and subsequently carried at fair value on the balance sheets. Changes in fair value are recorded as net investment income in the statements of earnings.

Loans to policyholders of Lifeco are classified as loans and receivables and measured at amortized cost. Loans to policyholders are shown at their unpaid principal balance and are fully secured by the cash surrender values of the policies. The carrying value of loans to policyholders approximates fair value.

Fair value measurement

The carrying values of financial assets reflect the prevailing market liquidity and the liquidity premiums embedded in the market pricing methods the Corporation and its subsidiaries rely upon.

Fair value movement on the assets supporting insurance contract liabilities is a major factor in the movement of insurance contract liabilities. Changes in the fair value of bonds designated or classified as fair value through profit or loss that support insurance contract liabilities are largely offset by corresponding changes in the fair value of these liabilities, except when the bond has been deemed impaired.

The Corporation and its subsidiaries maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The following is a description of the methodologies used to determine fair value.

a) Bonds and mortgage and other loans at fair value through profit or loss and available for sale

Fair values of bonds and mortgage and other loans recorded at fair value through profit or loss or available for sale are determined with reference to quoted market bid prices primarily provided by third-party independent pricing sources. The Corporation and its subsidiaries obtain quoted prices in active markets, when available, for identical assets at the balance sheet dates to measure bonds and mortgage and other loans at fair value. Where prices are not quoted in a normally active market, fair values are determined by valuation models.

The Corporation and its subsidiaries estimate the fair value of bonds and mortgage and other loans not traded in active markets by referring to actively traded securities with similar attributes, dealer quotations, matrix pricing methodologies, discounted cash flow analyses and/or internal valuation models. These methodologies consider such factors as the issuer's industry, the security's rating, term, coupon rate and position in the capital structure of the issuer, as well as yield curves, credit curves, prepayment rates and other relevant factors. For bonds and mortgage and other loans that are not traded in active markets, valuations are adjusted to reflect illiquidity, and such adjustments are generally based on available market evidence. In the absence of such evidence, management's best estimate is used.

NOTE 2 Basis of Presentation and Summary of Significant Accounting Policies (continued)

b) Shares at fair value through profit or loss and available for sale

Fair values for publicly traded shares are generally determined by the last bid price for the security from the exchange where it is principally traded. Fair values for shares for which there is no active market are typically based upon alternative valuation techniques such as discounted cash flow analysis, review of price movements relative to the market and utilization of information provided by the underlying investment manager. The Corporation and its subsidiaries obtain quoted prices in active markets, when available, for identical assets at the balance sheet dates to measure shares at fair value.

c) Equity-release mortgages at fair value through profit or loss

There are no market observable prices for equity-release mortgages; an internal valuation model is used which is based on discounting expected future cash flows and considering the embedded no-negative-equity guarantee. Inputs to the model include market-observable inputs such as benchmark yields and risk-adjusted spreads. Non-market observable inputs include property growth and volatility rates, expected rates of voluntary redemptions, death, moving to long-term care and interest cessation assumptions and the value of the no-negative-equity guarantee.

d) Bonds and mortgage and other loans classified as loans and receivables

The fair values disclosed for bonds and mortgage and other loans, classified as loans and receivables, are determined by discounting expected future cash flows using current market rates for similar instruments. Valuation inputs typically include benchmark yields and risk-adjusted spreads based on current lending activities and market activity.

e) Investment properties

Fair values for investment properties are determined using independent qualified appraisal services and include adjustments by Lifeco management for material changes in property cash flows, capital expenditures or general market conditions in the interim period between appraisals. The determination of the fair value of investment properties requires the use of estimates including future cash flows (such as future leasing assumptions, rental rates, capital and operating expenditures) and discount, reversionary and overall capitalization rates applicable to the asset based on current market conditions. Investment properties under construction are valued at fair value if such values can be reliably determined; otherwise, they are recorded at cost.

Impairment

Investments are reviewed on an individual basis at the end of each reporting period to determine whether there is any objective evidence of impairment. The Corporation and its subsidiaries consider various factors in the impairment evaluation process, including, but not limited to, the financial condition of the issuer, specific adverse conditions affecting an industry or region, decline in fair value not related to interest rates, bankruptcy or defaults, and delinquency in payments of interest or principal.

Investments are deemed to be impaired when there is no longer reasonable assurance of collection. The fair value of an investment is not a definitive indicator of impairment, as it may be significantly influenced by other factors, including the remaining term to maturity and liquidity of the asset. However, market price is taken into consideration when evaluating impairment.

For impaired bonds and mortgage and other loans classified as loans and receivables, provisions are established or impairments recorded to adjust the carrying value to the net realizable amount. Wherever possible, the fair value of collateral underlying the loans or observable market price is used to establish the net realizable value. Where available-for-sale bonds are determined to be impaired, the accumulated loss recorded in other comprehensive income is reclassified to net investment income. Impairments on available-for-sale debt instruments are reversed if there is objective evidence that a permanent recovery has occurred. As well, interest is no longer accrued on impaired bonds and mortgage and other loans and previous interest accruals are reversed in net investment income.

Impairment losses on available-for-sale shares are recorded in net investment income if the loss is significant or prolonged. Subsequent losses are recorded directly in net investment income.

Securities lending

Lifeco engages in securities lending through its securities custodians as lending agents. Loaned securities are not derecognized, and continue to be reported within investments, as Lifeco retains substantial risks and rewards and economic benefits related to the loaned securities.

NOTE 2 Basis of Presentation and Summary of Significant Accounting Policies (continued)

TRANSACTION COSTS

Transaction costs related to financial instruments classified or designated as fair value through profit or loss are expensed as incurred. Transaction costs related to financial assets classified as available for sale or loans and receivables are included in the value of the instrument at acquisition, and recorded in net earnings using the effective interest method. Transaction costs related to financial liabilities classified as other than fair value through profit or loss are deducted from the value of the instrument issued and recorded in net earnings using the effective interest method.

OWNER-OCCUPIED PROPERTIES AND CAPITAL ASSETS

Owner-occupied properties and capital assets include right-of-use assets.

Owner-occupied properties and capital assets are carried at cost less accumulated depreciation, disposals and impairments. Capital assets include equipment, furniture and fixtures. Owner-occupied properties, equipment, furniture and fixtures are depreciated using the straight-line method, over their estimated useful lives, as follows: i) owner-occupied properties (10 to 50 years); and ii) capital assets (3 to 17 years).

Right-of-use assets are depreciated to the earlier of the end of the estimated useful life of right-of-use asset or the end of the lease term using the straight-line method. Depreciation expense is included within operating and administration expenses.

Depreciation methods, useful lives and residual values are reviewed at least annually and adjusted if necessary. Owner-occupied properties and capital assets are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable.

LEASES

At inception of a contract, the Corporation and its subsidiaries assess whether a contract is or contains a lease. The Corporation and its subsidiaries recognize a right-of-use asset and a lease liability at the lease commencement date.

The right-of-use asset is initially measured based on the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentive received. Right-of-use assets are included within owner-occupied properties and capital assets with the exception of right-of-use assets which meet the definition of investment property which are presented within investment properties and subject to the Corporation's associated accounting policy.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Corporation's or its subsidiaries' incremental borrowing rate. Generally, the incremental borrowing rate is used. The lease liability is measured at amortized cost using the effective interest method and is included within other liabilities. Interest expense on lease liabilities is included within financing charges.

The Corporation and its subsidiaries do not recognize right-of-use assets and lease liabilities for short-term leases that have a lease term of 12 months or less and leases of low-value assets. The lease payments associated with these leases are recognized as an expense on a straight-line basis over the term within operating and administrative expenses.

For the 2018 comparative figures, leases that do not transfer substantially all the risks and rewards of ownership are classified as operating leases. Payments made under operating leases, where the Corporation and its subsidiaries are the lessee, are recorded in net earnings over the period of use.

Where the Corporation and its subsidiaries are the lessor under an operating lease for its investment property, the assets subject to the lease arrangement are presented within the balance sheets. Income from these leases is recognized in the statements of earnings on a straight-line basis over the lease term.

Leases that transfer substantially all the risks and rewards of ownership to the lessee are classified as finance leases. Where the Corporation and its subsidiaries are the lessor under a finance lease, the investment is recognized as a receivable at an amount equal to the net investment in the lease which is the present value of the minimum lease payments due from the lessee presented within the balance sheets. Payments received from the lessee are apportioned between the recognition of finance lease income and the reduction of the finance lease receivable. Income from the finance leases is recognized in the statements of earnings at a constant periodic rate of return on net investment in the finance lease.

NOTE 2 Basis of Presentation and Summary of Significant Accounting Policies (continued)

OTHER ASSETS

Other assets include premiums in course of collection, accounts receivable and interest receivable, prepaid expenses, deferred acquisition costs, deferred selling commissions and miscellaneous other assets which are measured at amortized cost.

Deferred acquisition costs

Deferred acquisition costs relating to investment contracts are recognized as assets if the costs are incremental and incurred due to the contract being issued. Deferred acquisition costs are amortized on a straight-line basis over the term of the policy, not exceeding 20 years.

Deferred selling commissions

Commissions are paid on investment product sales where IGM either receives a fee directly from the client or where it receives a fee directly from the investment fund.

Commissions paid on investment product sales where IGM receives a fee directly from the client are capitalized and amortized over their estimated useful lives, not exceeding a period of seven years. IGM regularly reviews the carrying value of deferred selling commissions with respect to any events or circumstances that indicate impairment. Among the tests performed by IGM to assess recoverability is the comparison of the future economic benefits derived from the deferred selling commission asset in relation to its carrying value.

All other commissions paid on investment product sales are expensed as incurred.

ASSETS AND LIABILITIES HELD FOR SALE

Disposal groups are classified as held for sale when it has been determined that the carrying amount will be recovered through a sale transaction rather than continuing use. The disposal group is measured at the lower of its carrying amount and fair value less cost to sell. Individual assets and liabilities in a disposal group not subject to these measurement requirements include financial assets, investment properties and insurance contract liabilities. These assets and liabilities are measured in accordance with the relevant accounting policies described for those assets and liabilities included in this note before the disposal group as a whole is measured at the lower of its carrying amount and fair value less cost to sell. Any impairment loss for the disposal group is recognized as a reduction to the carrying amount for the portion of the disposal group under the measurement requirements for IFRS 5, *Non-Current Assets Held for Sale and Discontinued Operations*.

Disposal group assets and liabilities classified as held for sale are presented separately on the balance sheets. Losses from disposal groups held for sale are included in operating and administrative expenses.

BUSINESS COMBINATIONS, GOODWILL AND INTANGIBLE ASSETS

Business combinations are accounted for using the acquisition method. Goodwill represents the excess of purchase consideration over the fair value of net assets acquired. Following initial recognition, goodwill is measured at cost less any accumulated impairment losses.

Intangible assets comprise finite life and indefinite life intangible assets. Finite life intangible assets include the value of technology and software and certain customer contracts. Finite life intangible assets are reviewed at least annually to determine if there are indicators of impairment and the amortization period and method are reviewed and adjusted if necessary. Intangible assets with finite lives are amortized on a straight-line basis over their estimated useful lives as follows: i) technology and software (3 to 10 years); and ii) customer contract-related (7 to 30 years).

Indefinite life intangible assets include brands, trademarks and trade names, certain customer contracts, mutual fund management contracts and the shareholders' portion of acquired future participating account profit. Amounts are classified as indefinite life intangible assets based on an analysis of all the relevant factors, and when there is no foreseeable limit to the period over which the asset is expected to generate net cash inflows. The identification of indefinite life intangible assets is made by reference to relevant factors such as product life cycles, potential obsolescence, industry stability and competitive position. Following initial recognition, indefinite life intangible assets are measured at cost less accumulated impairment losses.

NOTE 2 Basis of Presentation and Summary of Significant Accounting Policies (continued)

Impairment testing
Goodwill and indefinite life intangible assets are tested for impairment annually or more frequently if events indicate that impairment may have occurred. Indefinite life intangible assets that were previously impaired are reviewed at each reporting date for evidence of reversal.

Goodwill and indefinite life intangible assets have been allocated to cash generating units or to groups of cash generating units (CGU), representing the lowest level that the assets are monitored for internal reporting purposes. Goodwill and indefinite life intangible assets are tested for impairment by comparing the carrying value of the CGU to the recoverable amount of the CGU to which the goodwill and indefinite life intangible assets have been allocated.

An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of the asset's fair value less cost of disposal or value in use, which is calculated using the present value of estimated future cash flows expected to be generated.

SEGREGATED FUNDS
Segregated fund assets and liabilities arise from contracts where all financial risks associated with the related assets are borne by policyholders and are presented separately in the balance sheets. The assets and liabilities are set equal to the fair value of the underlying asset portfolio. Investment income and change in fair value of the segregated fund assets are offset by corresponding changes in the segregated fund liabilities.

INSURANCE AND INVESTMENT CONTRACT LIABILITIES
Contract classification
When significant insurance risk exists, Lifeco's products are classified at contract inception as insurance contracts, in accordance with IFRS 4, *Insurance Contracts* (IFRS 4). Significant insurance risk exists when Lifeco agrees to compensate policyholders or beneficiaries of the contract for specified uncertain future events that adversely affect the policyholder and whose amount and timing is unknown. Refer to Note 13 for a discussion on Lifeco's insurance risk.

In the absence of significant insurance risk, the contract is classified as an investment contract or service contract. Investment contracts with discretionary participating features are accounted for in accordance with IFRS 4 and investment contracts without discretionary participating features are accounted for in accordance with IAS 39, *Financial Instruments: Recognition and Measurement*. Lifeco has not classified any contracts as investment contracts with discretionary participating features.

Investment contracts may be reclassified as insurance contracts after inception if insurance risk becomes significant. A contract that is classified as an insurance contract at contract inception remains as such until all rights and obligations under the contract are extinguished or expire.

Investment contracts are contracts that carry financial risk, which is the risk of a possible future change in one or more of the following: interest rate, commodity price, foreign exchange rate, or credit rating. Refer to Note 22 for a discussion on Lifeco's risk management.

Measurement
Insurance contract liabilities represent the amounts required, in addition to future premiums and investment income, to provide for future benefit payments, policyholder dividends, commission and policy administrative expenses for all insurance and annuity policies in force with Lifeco. The Appointed Actuaries of Lifeco's subsidiaries are responsible for determining the amount of the liabilities in order to make appropriate provisions for Lifeco's obligations to policyholders. The Appointed Actuaries determine the liabilities for insurance and investment contracts using generally accepted actuarial practices, according to the standards established by the Canadian Institute of Actuaries. The valuation uses the CALM. This method involves the projection of future events in order to determine the amount of assets that must be set aside currently to provide for all future obligations and involves a significant amount of judgment.

NOTE 2 Basis of Presentation and Summary of Significant Accounting Policies (continued)

In the computation of insurance contract liabilities, valuation assumptions have been made regarding rates of mortality and morbidity, investment returns, levels of operating expenses, rates of policy termination and rates of utilization of elective policy options or provisions. The valuation assumptions use best estimates of future experience together with a margin for adverse deviation. These margins are necessary to provide for possibilities of misestimation and for future deterioration in the best estimate assumptions and provide reasonable assurance that insurance contract liabilities cover a range of possible outcomes. Margins are reviewed periodically for continued appropriateness.

Investment contract liabilities are measured at fair value determined using discounted cash flows utilizing the yield curves of financial instruments with similar cash flow characteristics.

REINSURANCE CONTRACTS

Lifeco, in the normal course of business, is a user of reinsurance in order to limit the potential for losses arising from certain exposures and a provider of reinsurance. Assumed reinsurance refers to the acceptance of certain insurance risks by Lifeco underwritten by another company. Ceded reinsurance refers to the transfer of insurance risk, along with the respective premiums, to one or more reinsurers who will share the risks. To the extent that assuming reinsurers are unable to meet their obligations, Lifeco remains liable to its policyholders for the portion reinsured. Consequently, allowances are made for reinsurance contracts which are deemed uncollectible.

Reinsurance contracts are insurance contracts and undergo the classification as described within the Insurance and Investment Contract Liabilities section of this note. Assumed reinsurance premiums, commissions and claim settlements, as well as the reinsurance assets associated with insurance and investment contracts, are accounted for in accordance with the terms and conditions of the underlying reinsurance contract. Reinsurance assets are reviewed for impairment on a regular basis for any events that may trigger impairment. Lifeco considers various factors in the impairment evaluation process, including, but not limited to, collectability of amounts due under the terms of the contract. The carrying amount of a reinsurance asset is adjusted through an allowance account with any impairment loss being recorded in the statements of earnings.

Any gains or losses on buying reinsurance are recognized in the statement of earnings immediately at the date of purchase in accordance with the CALM.

Assets and liabilities related to reinsurance are reported on a gross basis in the balance sheets. The amount of liabilities ceded to reinsurers is estimated in a manner consistent with the claim liability associated with reinsured risks.

FUNDS HELD BY CEDING INSURERS / FUNDS HELD UNDER REINSURANCE CONTRACTS

On the asset side, funds held by ceding insurers are assets that would normally be paid to Lifeco but are retained by the cedant to reduce potential credit risk. Under certain forms of reinsurance contracts it is customary for the cedant to retain amounts on a funds-withheld basis supporting the insurance or investment contract liabilities ceded. For the funds-withheld assets where the underlying asset portfolio is managed by Lifeco, the credit risk is retained by Lifeco. The funds-withheld balance where Lifeco assumes the credit risk is measured at the fair value of the underlying asset portfolio with the change in fair value recorded in net investment income. See Note 7 for funds held by ceding insurers that are managed by Lifeco. Other funds held by ceding insurers are general obligations of the cedant and serve as collateral for insurance contract liabilities assumed from cedants. Funds-withheld assets on these contracts do not have fixed maturity dates, their release generally being dependent on the run-off of the corresponding insurance contract liabilities.

On the liability side, funds held under reinsurance contracts consist mainly of amounts retained by Lifeco from ceded business written on a funds-withheld basis. Lifeco withholds assets related to ceded insurance contract liabilities in order to reduce credit risk.

POLICYHOLDER BENEFITS

Policyholder benefits include benefits and claims on life insurance contracts, maturity payments, annuity payments and surrenders. Gross benefits and claims for life insurance contracts include the cost of all claims arising during the year and settlement of claims. Death claims and surrenders are recorded on the basis of notifications received. Maturities and annuity payments are recorded when due.

DERECOGNITION OF SECURITIZED MORTGAGES

IGM enters into transactions where it transfers financial assets recognized on its balance sheets. The determination of whether the financial assets are derecognized is based on the extent to which the risks and rewards of ownership are transferred.

NOTE 2 Basis of Presentation and Summary of Significant Accounting Policies (continued)

If substantially all of the risks and rewards of a financial asset are not retained, IGM derecognizes the financial asset. The gains or losses and the servicing fee revenue for financial assets that are derecognized are reported in net investment income in the statements of earnings.

If all or substantially all risks and rewards are retained, the financial assets are not derecognized and the transactions are accounted for as secured financing transactions.

OTHER FINANCIAL LIABILITIES

Debentures and other debt instruments, and capital trust debentures are initially recorded on the balance sheets at fair value and subsequently carried at amortized cost using the effective interest method with amortization expense recorded in financing charges in the statements of earnings. These liabilities are derecognized when the obligation is expired, cancelled or redeemed.

Accounts payable, dividends and interest payable, and deferred income reserves are measured at amortized cost. Deferred income reserves related to investment contracts are amortized on a straight-line basis to recognize the initial policy fees over the policy term, not exceeding 20 years.

Provisions are recognized within other liabilities when the Corporation or its subsidiaries have a present obligation, either legal or constructive, as a result of a past event, and it is probable that an outflow of economic resources will be required to settle the obligation and a reliable estimate can be made of the amount. Provisions are measured based on management of the Corporation and of its subsidiaries' best estimate at the balance sheet date. The Corporation recognizes a provision for restructuring when a detailed formal plan for the restructuring has been established and the plan has raised a valid expectation in those affected that the restructuring will occur.

Limited-life fund units represent the interest held by third parties in funds consolidated by the Corporation. These fund units have a defined maximum fixed life where the Corporation has an obligation to distribute the residual interests of the fund to fund partners based on their proportionate share of the fund's equity in the form of cash or other financial assets at the end of the fund's life. Limited-life funds are classified as liabilities and recorded at fair value. Changes in the value are recorded in the statements of earnings in the period of the change.

PENSION PLANS AND OTHER POST-EMPLOYMENT BENEFITS

The Corporation and its subsidiaries maintain funded defined benefit pension plans for certain employees and advisors, unfunded supplementary employee retirement plans (SERP) for certain employees, and unfunded post-employment health, dental and life insurance benefits to eligible employees, advisors and their dependants. The Corporation and its subsidiaries also maintain defined contribution pension plans for eligible employees and advisors.

The defined benefit pension plans provide pensions based on length of service and final average earnings. Expenses for defined benefit plans are actuarially determined using the projected unit credit method prorated on service, based upon management of the Corporation and of its subsidiaries' assumptions about discount rates, compensation increases, retirement ages of employees, mortality and expected health care costs. Any changes in these assumptions will impact the carrying amount of defined benefit obligations. The Corporation and its subsidiaries' accrued benefit liability in respect to defined benefit plans is calculated separately for each plan by discounting the amount of the benefit that employees have earned in return for their service in current and prior periods and deducting the fair value of any plan assets.

The Corporation and its subsidiaries determine the net interest component of the pension expense for the period by applying the discount rate used to measure the accrued benefit liability at the beginning of the annual period to the net accrued benefit liability. The discount rate used to value liabilities is determined by reference to market yields on high-quality corporate bonds.

If the plan benefits are changed, or a plan is curtailed, any past service costs or curtailment gains or losses are recognized immediately in net earnings.

Net interest costs, current service costs, past service costs and curtailment and settlement gains or losses are included in operating and administrative expenses.

Remeasurements represent actuarial gains and losses and the actual return on plan assets, less interest calculated at the discount rate, and changes in the asset ceiling. Remeasurements are recognized immediately through other comprehensive income and are not subsequently reclassified to net earnings.

NOTE 2 Basis of Presentation and Summary of Significant Accounting Policies (continued)

The accrued benefit asset (liability) represents the plan surplus (deficit) and is included in other assets (other liabilities).

Contributions to the defined contribution plans are expensed as incurred.

INCOME TAXES

The income tax expense for the period represents the sum of current income tax and deferred income tax. Income tax is recognized as an expense or recovery in the statements of earnings, except to the extent that it relates to items that are not recognized in the statements of earnings (whether in other comprehensive income or directly in equity), in which case the income tax is also recognized in other comprehensive income or directly in equity.

Current income tax

Current income tax is based on taxable income for the year. Current tax liabilities (assets) for the current and prior periods are measured at the amount expected to be paid to (recovered from) the taxation authorities using the rates that have been enacted or substantively enacted at the balance sheet date. Current tax assets and current tax liabilities are offset, if a legally enforceable right exists to offset the recognized amounts and the entity intends either to settle on a net basis, or to realize the assets and settle the liabilities simultaneously.

Deferred income tax

Deferred income tax is the tax expected to be payable or recoverable on differences arising between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax basis used in the computation of taxable income and on unused tax attributes, and is accounted for using the balance sheet liability method. Deferred tax liabilities are generally recognized for all taxable temporary differences and deferred tax assets are recognized to the extent that it is probable that future taxable profits will be available against which deductible temporary differences and unused tax attributes can be utilized.

Recognition of deferred tax assets is based on the fact that it is probable that the entity will have taxable profits and/or tax planning opportunities available to allow the deferred tax asset to be utilized. Changes in circumstances in future periods may adversely impact the assessment of the recoverability. The uncertainty of the recoverability is taken into account in establishing the deferred tax assets. The Corporation and its subsidiaries' financial planning process provides a significant basis for the measurement of deferred tax assets.

Deferred tax assets and liabilities are measured at the tax rates expected to apply in the year when the asset is realized or the liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted at the balance sheet date. Deferred tax assets and deferred tax liabilities are offset, if a legally enforceable right exists to net current tax assets against current tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

The carrying amount of deferred tax assets is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient future taxable profits will be available to allow all or part of the deferred tax asset to be utilized. Unrecognized deferred tax assets are reassessed at each balance sheet date and are recognized to the extent that it has become probable that future taxable profits will allow the deferred tax asset to be recovered.

Deferred tax liabilities are recognized for taxable temporary differences arising on investments in subsidiaries, jointly controlled corporations and associates, except where the group controls the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.

DERIVATIVE FINANCIAL INSTRUMENTS

The Corporation and its subsidiaries use derivative products as risk management instruments to hedge or manage revenues and asset, liability and capital positions. The Corporation and its subsidiaries' policies prohibit the use of derivative instruments for speculative trading purposes.

Derivatives are measured at fair value and recorded on the balance sheets. The method of recognizing unrealized and realized fair value gains and losses depends on whether the derivatives are designated as hedging instruments. For derivatives that are not designated as hedging instruments, unrealized and realized gains and losses are recorded in net investment income in the statements of earnings. For derivatives designated as hedging instruments, unrealized and realized gains and losses are recognized according to the nature of the hedged item.

NOTE 2 Basis of Presentation and Summary of Significant Accounting Policies (continued)

Derivatives are valued using market transactions and other market evidence whenever possible, including market-based inputs to models, broker or dealer quotations or alternative pricing sources with reasonable levels of price transparency. When models are used, the selection of a particular model to value a derivative depends on the contractual terms of, and specific risks inherent in, the instrument, as well as the availability of pricing information in the market. The Corporation and its subsidiaries generally use similar models to value similar instruments. Valuation models require a variety of inputs, including contractual terms, market prices and rates, yield curves, credit curves, measures of volatility, prepayment rates and correlations of such inputs.

To qualify for hedge accounting, the relationship between the hedged item and the hedging instrument must meet several strict conditions on documentation, probability of occurrence, hedge effectiveness and reliability of measurement. If these conditions are not met, then the relationship does not qualify for hedge accounting treatment and both the hedged item and the hedging instrument are reported independently, as if there was no hedging relationship.

Where a hedging relationship exists, the Corporation and its subsidiaries document all relationships between hedging instruments and hedged items, as well as its risk management objectives and strategy for undertaking various hedge transactions. This process includes linking derivatives that are used in hedging transactions to specific assets and liabilities on the balance sheets or to specific firm commitments or forecasted transactions. The Corporation and its subsidiaries also assess, both at the hedge's inception and on an ongoing basis, whether derivatives that are used in hedging transactions are effective in offsetting change in fair values or cash flows of hedged items. Hedge effectiveness is reviewed quarterly through correlation testing. Hedge accounting is discontinued when the hedge no longer qualifies for hedge accounting.

Fair value hedges

Fair value hedges are used to manage the exposure to change in fair value of a recognized asset or liability or an unrecognized firm commitment, or an identified portion of such an asset, liability or firm commitment, that is attributable to a particular risk and could affect profit or loss. For fair value hedges, change in fair value of both the hedging instrument and the hedged item are recorded in net investment income and consequently any ineffective portion of the hedge is recorded immediately in net investment income.

Cash flow hedges

Cash flow hedges are used to manage the exposure to variability in cash flows that is attributable to a particular risk associated with a recognized asset or liability or a highly probable forecast transaction and could affect profit or loss. For cash flow hedges, the effective portion of the change in fair value of the hedging instrument is recorded in other comprehensive income, while the ineffective portion is recognized immediately in net investment income. Gains and losses on cash flow hedges that accumulate in other comprehensive income are recorded in net investment income in the same period the hedged item affects net earnings. Gains and losses on cash flow hedges are immediately reclassified from other comprehensive income to net investment income if and when a forecasted transaction is no longer expected to occur.

Net investment hedges

Net investment hedges are used to manage the exposure to changes in the reporting entity's share in the net share of a foreign operation. For net investment hedges, the effective portion of changes in the fair value of the hedging instrument is recorded in other comprehensive income while the ineffective portion is recognized immediately in net investment income. The unrealized foreign exchange gains (losses) on the instruments are recorded within other comprehensive income and will be reclassified into net earnings when the investments are derecognized.

EMBEDDED DERIVATIVES

An embedded derivative is a component of a host contract that modifies the cash flows of the host contract in a manner similar to a derivative, according to a specified interest rate, financial instrument price, foreign exchange rate, underlying index or other variable. Embedded derivatives are treated as separate contracts and are recorded at fair value if their economic characteristics and risks are not closely related to those of the host contract and the host contract is not itself recorded at fair value through the statement of earnings. Embedded derivatives that meet the definition of an insurance contract are accounted for and measured as an insurance contract.

NOTE 2 Basis of Presentation and Summary of Significant Accounting Policies (continued)

EQUITY

Preferred shares are classified as equity if they are non-redeemable or if they are retractable only at the Corporation's option and if any dividends are discretionary. Costs that are directly attributable to the issue of share capital are recognized as a reduction from retained earnings, net of income tax.

Reserves are composed of share-based compensation and other comprehensive income. Share-based compensation reserve represents the vesting of options less options exercised. Other comprehensive income represents the total of the unrealized foreign exchange gains (losses) on translation of foreign operations, the actuarial gains (losses) on benefit pension plans, the unrealized gains (losses) on available-for-sale investments, the unrealized gains (losses) on cash flow hedges, and the share of other comprehensive income of jointly controlled corporations and associates.

Non-controlling interests represent the proportion of equity that is attributable to minority shareholders of subsidiaries.

SHARE-BASED PAYMENTS

Options granted to employees of the Corporation and its subsidiaries are measured at fair value on the date of the grant. Compensation expense is recognized in operating and administrative expenses in the statements of earnings over the vesting period of the granted options, with a corresponding increase in share-based compensation reserve. When the stock options are exercised, the proceeds received, together with the amount recorded in share-based compensation reserve, are included in the stated capital of the entity issuing the corresponding shares.

The Corporation and its subsidiaries recognize a liability for cash-settled awards, including those granted under Performance Share Unit plans and Deferred Share Unit plans. Compensation expense is recognized in operating and administrative expenses in the statements of earnings, net of related hedges, and a liability is recognized on the balance sheets over the vesting period. The liability is remeasured at fair value at each reporting period with the change in the liability recorded in operating and administrative expenses.

FOREIGN CURRENCY TRANSLATION

The Corporation and its subsidiaries operate with multiple functional currencies. The Corporation's financial statements are prepared in Canadian dollars, which is the functional and presentation currency of the Corporation.

Assets and liabilities denominated in foreign currencies are translated into each entity's functional currency at exchange rates prevailing at the balance sheet dates for monetary items and at exchange rates prevailing at the transaction date for non-monetary items. Revenues and expenses denominated in foreign currencies are translated into each entity's functional currency at an average of daily rates. Realized and unrealized exchange gains and losses are included in net investment income.

Translation of net investment in foreign operations

Foreign operations are subsidiaries, jointly controlled corporations, associates and/or business units with functional currencies other than the Canadian dollar. Assets and liabilities are translated into Canadian dollars at the rate of exchange prevailing at the balance sheet dates and all revenues and expenses are translated at an average of daily rates. Unrealized foreign currency translation gains and losses on the Corporation's net investment in its foreign operations are presented as a component of other comprehensive income. Unrealized foreign currency translation gains and losses are recognized proportionately in net earnings when there has been a disposal of a foreign operation.

EARNINGS PER COMMON SHARE

Basic earnings per common share is determined by dividing net earnings available to common shareholders by the weighted average number of common shares outstanding for the year. Diluted earnings per common share is determined using the same method as basic earnings per common share, except that net earnings available to common shareholders and the weighted average number of common shares outstanding are adjusted to include the potential dilutive effect of outstanding stock options granted by the Corporation and its subsidiaries, as determined by the treasury stock method.

COMPARATIVE FIGURES

The Corporation reclassified certain comparative figures for disclosure items to conform to the current year's presentation. These reclassifications had no impact on the total equity or net earnings of the Corporation.

NOTE 2 Basis of Presentation and Summary of Significant Accounting Policies (continued)

FUTURE ACCOUNTING CHANGES

The Corporation and its subsidiaries continuously monitor the potential changes proposed by the International Accounting Standards Board (IASB) and analyze the effect that changes in the standards may have on their consolidated financial statements when they become effective.

New standard	Summary of future changes
IFRS 17 – *Insurance Contracts* (IFRS 17)	In May 2017, the IASB issued IFRS 17, *Insurance Contracts*, which will replace IFRS 4, *Insurance Contracts*. On June 26, 2019 the IASB issued an exposure draft covering targeted amendments to the IFRS 17 standard, including a proposed amendment to defer the effective date of the standard by one year to January 1, 2022. The IASB is currently in the process of considering the feedback received on the exposure draft and is planning to issue the final amendments in mid-2020. Due to the responses received from stakeholders during the comment period on the exposure draft, on March 17, 2020, the IASB approved the deferral of the effective date of IFRS 17 to annual reporting periods beginning on or after January 1, 2023. In addition, the IASB extended to January 1, 2023 the exemption for insurers to apply the financial instruments standard, IFRS 9 - *Financial Instruments*, keeping the alignment of the effective dates for IFRS 9 and IFRS 17. The IASB has also confirmed certain amendments proposed in the exposure draft – namely the amendment on the expected recovery of insurance acquisition cash flows – and has also agreed to extend the scope of the amendment related to the recovery of losses on reinsurance contracts to apply to all reinsurance held contracts. The adoption of IFRS 17 is a significant initiative for Lifeco supported by a formal governance framework and project plan, for which substantial resources are being dedicated. Lifeco has assembled a project team that is working on implementation which involves preparing the financial reporting systems and processes for reporting under IFRS 17, policy development and operational and change management. These groups are also monitoring developments from the IASB and various industry groups that Lifeco has representation on. Lifeco has made progress in implementing its project plan, with key policy decisions well advanced as well as progression on the implementation of the technology solution. Lifeco continues to evaluate the readiness of technology vendors and their ability to deliver for IFRS 17 implementation. IFRS 17 sets out the requirements for the recognition, measurement, presentation and disclosures of insurance contracts a company issues and reinsurance contracts it holds. IFRS 17 introduces three new measurement models depending on the nature of the insurance contracts: the General Measurement Model, the Premium Allocation Approach and the Variable Fee Approach. IFRS 17 requires entities to measure insurance contract liabilities on the balance sheet as the total of: (a) the fulfilment cash flows: the current estimates of amounts that Lifeco expects to collect from premiums and pay out for claims, benefits and expenses, including an adjustment for the timing and risk of those amounts; and (b) the contractual service margin: the future profit for providing insurance coverage. Under IFRS 17, the discount rate used to reflect the time value of money in the fulfilment cash flows must be based on the characteristics of the liability. This is a significant change from IFRS 4 and the CALM, where the discount rate was based on the yield curves of the assets supporting those liabilities (refer to the Corporation’s significant accounting policies in Note 2 of these financial statements). The future profit for providing insurance coverage (including impacts of new business) is reflected in the initial recognition of insurance contract liabilities and then recognized into profit or loss over time as the insurance coverage is provided. IFRS 17 also requires Lifeco to distinguish between groups of contracts expected to be profit making and groups of contracts expected to be onerous. Lifeco is required to update the fulfilment cash flows at each reporting date, using current estimates of the amount, timing and uncertainty of cash flows and discount rates. As a result of the new valuation methodologies required under IFRS 17, Lifeco expects its insurance contract liabilities to increase upon adoption. IFRS 17 will affect how Lifeco accounts for its insurance contracts and how the financial performance is reported in the statements of earnings, in particular the timing of earnings recognition for insurance contracts. The adoption of IFRS 17 will also have a significant impact on how insurance contract results are presented and disclosed in the financial statements and on regulatory and tax regimes that are dependent upon IFRS accounting values. Lifeco is also actively monitoring potential impacts on regulatory capital and its associated ratios and disclosures. Lifeco continues to assess all these impacts through its global implementation plan.

NOTE 2 Basis of Presentation and Summary of Significant Accounting Policies (continued)

New standard	Summary of future changes
Current implication of IFRS 9 – *Financial Instruments* (IFRS 9)	In July 2014, the IASB issued a final version of IFRS 9, *Financial Instruments*, which replaces IAS 39, *Financial Instruments: Recognition and Measurement*, the current standard for accounting for financial instruments, with an effective date of January 1, 2018. The effective date for IFRS 9 has been deferred to align with the effective date for IFRS 17 of January 1, 2023. The standard was completed in three separate phases: ▪ Classification and measurement: this phase requires that financial assets be classified at either amortized cost or fair value on the basis of the entity's business model for managing the financial assets and the contractual cash flow characteristics of the financial assets. ▪ Impairment methodology: this phase replaces the current incurred loss model for impairment of financial assets with an expected loss model. ▪ Hedge accounting: this phase replaces the current rule-based hedge accounting requirements in IAS 39 with guidance that more closely aligns the accounting with an entity's risk management activities. In September 2016, the IASB issued an amendment to IFRS 4, *Insurance Contracts* (IFRS 4). The amendment "Applying IFRS 9, *Financial Instruments* with IFRS 4, *Insurance Contracts*" provides qualifying insurance companies with two options to address the potential volatility associated with implementing the IFRS 9 standard before the new proposed insurance contract standard is effective. The two options are as follows: ▪ *Deferral Approach:* provides the option to defer implementation of IFRS 9 until the proposed effective date of the new insurance contract standard; or ▪ *Overlay Approach:* provides the option to recognize the volatility that could arise when IFRS 9 is applied within other comprehensive income, rather than profit or loss. The Corporation qualifies and has elected to apply the deferral approach which permits the adoption of both IFRS 9 and IFRS 17, simultaneously. The disclosure for the measurement and classification of the Corporation's portfolio investments provides most of the information required by IFRS 9. The Corporation and Lifeco continue to evaluate the impact of the adoption of this standard with the adoption of IFRS 17. Pargesa (held through Parjointco), a jointly controlled corporation, does not qualify for the exemption and adopted IFRS 9 on January 1, 2018. The Corporation, in accordance with the amendment of IFRS 4 to defer the adoption of IFRS 9, is permitted although not required to retain the accounting policies applied by an associate or a jointly controlled corporation which is accounted for using the equity method. The Corporation has decided to continue applying IAS 39 to Pargesa's results.
IFRS 3 – *Business Combinations* (IFRS 3)	In October 2018, the IASB issued amendments to IFRS 3, *Business Combinations*. The amendments provide additional guidance as to whether a company acquired a business or a group of assets. The amendments will be applied prospectively to all business combinations and asset acquisitions for which the acquisition date is on or after January 1, 2020.
IAS 1 – *Presentation of Financial Statements* (IAS 1) and IAS 8 – *Accounting Policies, Changes in Accounting Estimates and Errors* (IAS 8)	In October 2018, the IASB issued amendments to IAS 1, *Presentation of Financial Statements* and IAS 8, *Accounting Policies, Changes in Accounting Estimates and Errors*. The amendments are to clarify the definition of "material" and to align the definition used in the Conceptual Framework and the standards themselves. The amendments will be applied prospectively for annual periods beginning on or after January 1, 2020.
IFRS 9 – *Financial Instruments* (IFRS 9) IAS 39 – *Financial Instruments: Recognition and Measurement* (IAS 39) and IFRS 7 – *Financial Instruments: Disclosures* (IFRS 7)	In September 2019, the IASB issued amendments to IFRS 9, *Financial Instruments*, IAS 39, *Financial Instruments: Recognition and Measurement* and IFRS 7, *Financial Instruments: Disclosures.* The amendments modify specific hedge accounting requirements so that entities would apply those hedge accounting requirements assuming that the interest rate benchmark on which the hedged cash flows and cash flows from the hedging instrument are based will not be altered as a result of interest rate benchmark reform. The amendments are effective for periods beginning on or after January 1, 2020. Although adoption of these amendments will not have a significant impact on the Corporation's consolidated financial statements, additional disclosures will be required.

NOTE 3 Business Acquisitions and Other Transactions

LIFECO

U.S. individual life insurance and annuity business reinsurance agreement

On January 24, 2019, Great-West Life & Annuity, a wholly owned subsidiary of Lifeco, announced that it had entered into an agreement with Protective Life Insurance Company (Protective Life) to sell, via indemnity reinsurance, substantially all of its individual life insurance and annuity business in the United States. The transaction was completed on June 1, 2019. As a result of the transaction, the balance sheets were impacted by the transfer of $15,511 million of investments to Protective Life (Note 6), recognition of $15,230 million of reinsurance assets (Note 13) and $985 million of cash received. Within the statements of earnings, Lifeco recognized increases of $13,889 million to ceded premiums, $1,080 million to fee income, $219 million to net investment income (Note 6) and $120 million to operating and administrative expenses (Note 23), as well as a decrease of $12,463 million to total paid or credited to policyholders.

In the second quarter of 2019, Lifeco recognized a loss of $247 million ($199 million after tax) related to this transaction, which included transaction costs of $80 million ($63 million after tax), and $45 million ($36 million after tax) due to updated expense assumptions primarily related to stranded overhead. The liabilities transferred and ceding commissions received at the closing of this transaction are subject to future adjustments. In October 2019, Protective Life provided Lifeco with its listing of proposed adjustments with respect to the liabilities transferred. In December 2019, Lifeco formally objected to these proposed adjustments. The Master Transaction Agreement requires the parties to attempt to resolve these differences in an informal manner and that process is ongoing. Based on the information presently known, it is difficult for Lifeco to predict the outcome of this matter with certainty, but this matter is not expected to materially impact the Corporation's financial position.

Invesco Ltd. (Ireland)

On August 1, 2018, Lifeco, through its indirect wholly owned subsidiary Irish Life, completed its agreement to acquire a controlling interest in Invesco Ltd. (Ireland), an independent financial consultancy firm in Ireland specializing in employee benefit consultancy and private wealth management that manages and administers assets on behalf of clients.

During the second quarter of 2019, Lifeco completed its comprehensive evaluation of the fair value of the net assets acquired, including intangible assets and completion of the final purchase price allocation, with no significant adjustment to goodwill. Revenue and net earnings of Invesco Ltd. (Ireland) were not significant to the results of the Corporation.

NOTE 4 Assets Held for Sale

Sale of policies to Scottish Friendly Assurance Society Limited

On June 21, 2018, Canada Life Limited, an indirect wholly owned subsidiary of Lifeco, announced an agreement to sell a heritage block of individual policies to Scottish Friendly of $4,216 million, comprised of unit-linked policies of $3,319 million and non-unit-linked policies of $897 million.

The initial composition of the assets and liabilities of the disposal group classified as assets held for sale at December 31, 2018 was as follows:

	December 31, 2018
Assets	
Cash and cash equivalents	112
Investments	
Bonds	731
Shares	22
Investment properties	29
Loans to policyholders	3
Assets held for sale	897
Investments on account of segregated fund policyholders	3,319
Total assets included in disposal group classified as held for sale	4,216
Liabilities	
Insurance contract liabilities	870
Investment contract liabilities	27
Liabilities held for sale	897
Insurance and investment contracts on account of segregated fund policyholders	3,319
Total liabilities included in disposal group classified as held for sale	4,216

On October 22, 2019, the required court approval for the transfer of these policies was received and the transfer occurred, effective November 1, 2019, as part of Lifeco's United Kingdom Business Transformation (Note 23).

Net earnings from the disposal of these policies will be finalized in the first half of 2020 and are not expected to be material to the financial statements.

NOTE 5 Cash and Cash Equivalents

	December 31, 2019	December 31, 2018
Cash	3,280	2,880
Cash equivalents	2,992	2,744
Cash and cash equivalents	6,272	5,624

At December 31, 2019, cash amounting to $578 million was restricted for use by subsidiaries ($339 million at December 31, 2018) primarily in respect of cash held in trust for reinsurance agreements or with regulatory authorities, under certain indemnity arrangements and in escrow.

NOTE 6 Investments

CARRYING VALUES AND FAIR VALUES

Carrying values and estimated fair values of investments are as follows:

	December 31, 2019 [1]		December 31, 2018	
	Carrying value	Fair value	Carrying value	Fair value
Bonds				
Designated as fair value through profit or loss [2]	84,128	84,128	89,929	89,929
Classified as fair value through profit or loss [2]	1,717	1,717	1,886	1,886
Available for sale	11,910	11,910	13,532	13,532
Loans and receivables	17,372	19,344	19,722	20,619
	115,127	117,099	125,069	125,966
Mortgage and other loans				
Loans and receivables	30,131	31,085	31,900	32,349
Designated as fair value through profit or loss [2]	1,314	1,314	813	813
Classified as fair value through profit or loss [2]	–	–	4	4
	31,445	32,399	32,717	33,166
Shares				
Designated as fair value through profit or loss [2]	9,752	9,752	8,658	8,658
Classified as fair value through profit or loss [2]	173	173	136	136
Available for sale [3]	263	263	452	452
	10,188	10,188	9,246	9,246
Investment properties	5,887	5,887	5,218	5,218
Loans to policyholders	8,601	8,601	8,929	8,929
	171,248	174,174	181,179	182,525

[1] As a result of the reinsurance transaction with Protective Life (Note 3), investments were derecognized and reinsurance assets were recognized (Note 13).

[2] A financial asset is designated as fair value through profit or loss on initial recognition if it eliminates or significantly reduces an accounting mismatch or if a financial asset is managed and its performance is evaluated on a fair value basis. For Lifeco, changes in the fair value of financial assets designated as fair value through profit or loss are generally offset by changes in insurance contract liabilities, since the measurement of insurance contract liabilities is determined with reference to the assets supporting the liabilities.

A financial asset is classified as fair value through profit or loss on initial recognition if it is part of a portfolio that is actively traded for the purpose of earning investment income.

[3] Fair value of certain shares available for sale cannot be reliably measured, therefore these investments are held at cost.

BONDS AND MORTGAGE AND OTHER LOANS

Carrying value of bonds and mortgage and other loans due over the current and non-current term is as follows:

	Carrying value			
	Term to maturity			
December 31, 2019	1 year or less	1-5 years	Over 5 years	Total
Bonds	12,287	26,044	76,759	115,090
Mortgage and other loans [1]	2,451	13,837	15,126	31,414
	14,738	39,881	91,885	146,504

[1] Mortgage and other loans include equity-release mortgages which do not have a fixed redemption date. The maturity profile of the portfolio has therefore been estimated based on redemption experience.

	Carrying value			
	Term to maturity			
December 31, 2018	1 year or less	1-5 years	Over 5 years	Total
Bonds	11,771	28,360	84,736	124,867
Mortgage and other loans [1]	2,228	14,359	16,103	32,690
	13,999	42,719	100,839	157,557

[1] Mortgage and other loans include equity-release mortgages which do not have a fixed redemption date. The maturity profile of the portfolio has therefore been estimated based on redemption experience.

The table shown above excludes the carrying value of impaired bonds and mortgage and other loans, as the ultimate timing of collectability is uncertain.

NOTE 6 Investments (continued)

IMPAIRED INVESTMENTS AND ALLOWANCE FOR CREDIT LOSSES

Carrying amount of impaired investments is as follows:

	December 31, 2019	December 31, 2018
Impaired amounts by classification		
Fair value through profit or loss	21	178
Available for sale	16	30
Loans and receivables	31	31
Total	68	239

The carrying amount of impaired investments includes bonds, mortgage and other loans and shares. The above carrying values for loans and receivables are net of allowances for credit losses of $52 million as at December 31, 2019 ($21 million as at December 31, 2018). The allowance for credit losses is supplemented by the provision for future credit losses included in insurance contract liabilities.

NET INVESTMENT INCOME

Year ended December 31, 2019	Bonds	Mortgage and other loans	Shares	Investment properties	Other	Total
Regular net investment income						
Investment income earned	3,962	956	302	374	551	6,145
Net realized gains						
Available-for-sale	57	–	46	–	–	103
Other classifications [1]	164	175	–	–	–	339
Net allowances for credit losses on loans and receivables	–	(50)	–	–	–	(50)
Other income (expenses)	–	6	–	(117)	(166)	(277)
	4,183	1,087	348	257	385	6,260
Change in fair value through profit or loss	5,785	107	1,446	37	(388)	6,987
Net investment income	9,968	1,194	1,794	294	(3)	13,247

[1] Includes realized gains from invested assets transferred as a result of the reinsurance transaction with Protective Life (Note 3).

Year ended December 31, 2018	Bonds	Mortgage and other loans	Shares	Investment properties	Other	Total
Regular net investment income						
Investment income earned	4,427	969	272	340	526	6,534
Net realized gains						
Available-for-sale	(7)	–	6	–	–	(1)
Other classifications	15	82	–	–	21	118
Net allowances for credit losses on loans and receivables	–	(4)	–	–	–	(4)
Other income (expenses)	–	(3)	–	(95)	(123)	(221)
	4,435	1,044	278	245	424	6,426
Change in fair value through profit or loss	(3,040)	(24)	(774)	33	201	(3,604)
Net investment income	1,395	1,020	(496)	278	625	2,822

Investment income earned comprises income from investments that are classified as available for sale, loans and receivables and investments classified or designated as fair value through profit or loss, net of impairment charges. Investment income from bonds and mortgage and other loans includes interest income and premium and discount amortization. Income from shares includes dividends and distributions from equity investment funds. Investment properties income includes rental income earned on investment properties, ground rent income earned on leased and sub-leased land, fee recoveries, lease cancellation income, and interest and other investment income earned on investment properties. Other income includes policyholder loan income, foreign exchange gains and losses, income earned from derivative financial instruments and other miscellaneous income.

NOTE 6 Investments (continued)

TRANSFERRED FINANCIAL ASSETS

Lifeco engages in securities lending to generate additional income. Lifeco's securities custodians are used as lending agents. Collateral, which exceeds the fair value of the loaned securities, is deposited by the borrower with Lifeco's lending agent and maintained by the lending agent until the underlying security has been returned. The fair value of the loaned securities is monitored on a daily basis by the lending agent, who obtains or refunds additional collateral as the fair value of the loaned securities fluctuates. Included in the collateral deposited with Lifeco's lending agent is cash collateral of $398 million as of December 31, 2019 ($84 million at December 31, 2018). In addition, the securities lending agent indemnifies Lifeco against borrower risk, meaning that the lending agent agrees contractually to replace securities not returned due to a borrower default. As at December 31, 2019, Lifeco had loaned securities (which are included in investments) with a fair value of $7,023 million ($8,847 million at December 31, 2018).

NOTE 7 Funds Held by Ceding Insurers

At December 31, 2019, Lifeco had amounts on deposit of $8,714 million ($9,251 million at December 31, 2018) for funds held by ceding insurers on the balance sheets. Income and expenses arising from the agreements are included in net investment income on the statements of earnings.

The details of the funds on deposit for certain agreements where Lifeco has credit risk are as follows:

Carrying values and estimated fair values

	December 31, 2019		December 31, 2018	
	Carrying value	Fair value	Carrying value	Fair value
Cash and cash equivalents	216	216	230	230
Bonds	6,445	6,445	6,925	6,925
Other assets	80	80	91	91
	6,741	6,741	7,246	7,246
Supporting:				
Reinsurance liabilities	6,537	6,537	6,992	6,992
Surplus	204	204	254	254
	6,741	6,741	7,246	7,246

Asset quality

The following table provides details of the carrying value of the bond portfolio by credit rating:

	December 31, 2019	December 31, 2018
AAA	601	609
AA	2,670	2,858
A	2,264	2,698
BBB	822	667
BB and lower	88	93
Total bonds	6,445	6,925

NOTE 8 Investments in Jointly Controlled Corporations and Associates

The carrying values of the investments in jointly controlled corporations and associates are as follows:

	December 31, 2019					December 31, 2018			
	Parjointco	Personal Capital	China AMC	Other	Total	Parjointco	China AMC	Other	Total
Carrying value, beginning of year	3,291	–	683	35	4,009	3,354	648	14	4,016
Acquisition	–	217	–	–	217	–	–	–	–
Investments	–	–	–	56	56	–	–	15	15
Share of earnings (losses)	193	(17)	30	5	211	57	29	8	94
Share of other comprehensive income (loss)	545	(6)	(40)	(1)	498	(36)	18	–	(18)
Dividends and distributions	(80)	–	(10)	(3)	(93)	(75)	(12)	–	(87)
Effects of changes in ownership and other	5	–	–	(1)	4	(9)	–	(2)	(11)
Carrying value, end of year	3,954	194	663	91	4,902	3,291	683	35	4,009

PARJOINTCO

At December 31, 2019, the Corporation held a 50% interest in Parjointco, a jointly controlled corporation. Parjointco held a 55.5% equity interest in Pargesa (same as at December 31, 2018), representing 75.4% of the voting rights.

At December 31, 2019, the net asset value of the Corporation's indirect interest in Pargesa is approximately $4,085 million. The carrying value of the investment in Pargesa is $3,954 million. For the year ended December 31, 2019, revenue of Pargesa was SF5,690 million (C$7,597 million) (SF6,174 million or C$8,178 million for the year ended December 31, 2018) and net earnings attributable to Pargesa's common shareholders was SF391 million (C$522 million) (SF361 million or C$478 million for the year ended December 31, 2018). Results reported by Pargesa are in accordance with IFRS 9. The Corporation's share of earnings in Parjointco includes an adjustment to account for Pargesa under IAS 39. Other financial information for Pargesa can be obtained from its publicly available information.

CHINA AMC

At December 31, 2019, IGM held 13.9% interest (same as December 31, 2018) in China AMC. China AMC is an asset management company established in Beijing, China. IGM has determined that it has significant influence and therefore accounts for its interest as an associate using the equity method. Significant influence arises from board representation, participating in the policy-making process, shared strategic initiatives including joint product launches and collaboration between management and investment teams.

Summarized financial information for China AMC is as follows:

	2019		2018	
[in millions]	Canadian dollars	Chinese renminbi	Canadian dollars	Chinese renminbi
Balance sheet at December 31[1]				
Assets	2,171	11,645	2,051	10,342
Liabilities	504	2,701	445	2,242
Comprehensive income for the years ended December 31				
Revenue	763	3,977	733	3,733
Net earnings attributable to common shareholders	230	1,201	224	1,140
Total comprehensive income	234	1,219	235	1,171

[1] Excludes fair value adjustments made at the time of acquisition of $3,248 million (RMB¥16,380 million).

NOTE 8 Investments in Jointly Controlled Corporations and Associates (continued)

PERSONAL CAPITAL

In January 2019, IGM invested an additional $67 million (US$50 million) in Personal Capital which increased its voting interest to 22.7%. IGM has determined that it has significant influence and therefore accounts for its interest as an associate using the equity method. Significant influence arises from its voting interest and board representation. The interest in Personal Capital was previously accounted for as an available-for-sale investment. The carrying value at the time of the acquisition of significant influence was $217 million. The reclassification of the investment from available for sale to an associate resulted in a gain recorded in net investment income.

As at December 31, 2019, IGM held a 24.8% equity interest in Personal Capital. IGM's equity earnings from Personal Capital include its proportionate share of Personal Capital's net loss adjusted by IGM's amortization of intangible assets that it recognized as a part of its investment in Personal Capital.

Summarized financial information for Personal Capital is as follows:

	2019	
	Canadian Dollars	U.S. Dollars
Balance sheet at December 31		
Assets	86	66
Liabilities	23	18
Comprehensive income for the year ended December 31		
Revenue	100	75
Net loss attributable to common shareholders	(56)	(43)
Total comprehensive loss	(56)	(43)

NOTE 9 Owner-Occupied Properties and Capital Assets

The carrying value and the changes in the carrying value of owner-occupied properties and capital assets are as follows:

				December 31, 2019
	Right-of-use [1] assets	Owner-occupied properties	Capital assets	Total
Cost, beginning of year	–	902	1,509	2,411
Adoption of IFRS 16 on January 1, 2019 [Note 2]	560	–	–	560
Additions	125	37	146	308
Modifications	(21)	–	–	(21)
Disposal/retirements	–	(10)	(28)	(38)
Changes in foreign exchange rates and other	(16)	(20)	–	(36)
Cost, end of year	648	909	1,627	3,184
Accumulated amortization, beginning of year	–	(119)	(961)	(1,080)
Amortization and impairment	(94)	(12)	(117)	(223)
Disposal/retirements	–	–	11	11
Changes in foreign exchange rates and other	1	1	(9)	(7)
Accumulated amortization, end of year	(93)	(130)	(1,076)	(1,299)
Carrying value, end of year	555	779	551	1,885

[1] Right-of-use assets include leased properties and leased capital assets.

			December 31, 2018
	Owner-occupied properties	Capital assets	Total
Cost, beginning of year	855	1,367	2,222
Additions	29	241	270
Disposal/retirements	–	(99)	(99)
Changes in foreign exchange rates and other	18	–	18
Cost, end of year	902	1,509	2,411
Accumulated amortization, beginning of year	(97)	(951)	(1,048)
Amortization and impairment	(22)	(116)	(138)
Disposal/retirements	–	80	80
Changes in foreign exchange rates and other	–	26	26
Accumulated amortization, end of year	(119)	(961)	(1,080)
Carrying value, end of year	783	548	1,331

The following table provides the carrying value of owner-occupied properties and capital assets by geographic location:

	December 31, 2019	December 31, 2018
Canada	1,055	759
United States	564	357
Europe	266	215
	1,885	1,331

NOTE 10 Other Assets

	December 31, 2019	December 31, 2018
Premiums in course of collection, accounts receivable and interest receivable	6,281	5,532
Client funds on deposit	892	618
Deferred acquisition costs and deferred selling commissions	750	705
Pension benefits [Note 25]	231	148
Income taxes receivable	248	228
Trading account assets	1,092	843
Finance leases receivable	405	410
Prepaid expenses	163	165
Other	231	469
	10,293	9,118

Total Other assets of $8,882 million as at December 31, 2019 ($7,837 million as at December 31, 2018) are to be realized within 12 months. This amount excludes deferred acquisition costs and deferred selling commissions, the changes in which are presented below.

DEFERRED ACQUISITION COSTS AND DEFERRED SELLING COMMISSIONS

The changes in the carrying value of the deferred acquisition costs and deferred selling commissions are as follows:

	December 31, 2019	December 31, 2018
Balance, beginning of year	705	638
Additions	189	145
Disposals	(36)	(35)
Amortization	(75)	(61)
Changes in foreign exchange rates and other	(33)	18
Balance, end of year	750	705

NOTE 11 Goodwill and Intangible Assets

GOODWILL

The carrying value and changes in the carrying value of goodwill are as follows:

	December 31, 2019			December 31, 2018		
	Cost	Accumulated impairment	Carrying value	Cost	Accumulated impairment	Carrying value
Balance, beginning of year	11,169	(1,223)	9,946	10,713	(1,133)	9,580
Business acquisitions	41	–	41	331	–	331
Impairment [1]	–	(19)	(19)	–	–	–
Changes in foreign exchange rates and other	(112)	54	(58)	125	(90)	35
Balance, end of year	11,098	(1,188)	9,910	11,169	(1,223)	9,946

[1] In 2019, $19 million of the goodwill in Lifeco's Financial Services CGU was impaired as a result of the reinsurance transaction with Protective Life (Note 3).

INTANGIBLE ASSETS

The carrying value and changes in the carrying value of the intangible assets are as follows:

Indefinite life intangible assets

December 31, 2019	Brands, trademarks and trade names	Customer contract-related	Mutual fund management contracts	Shareholders' portion of acquired future participating account profit	Total
Cost, beginning of year	1,330	2,665	741	354	5,090
Business acquisitions	1	–	–	–	1
Changes in foreign exchange rates	(34)	(103)	–	–	(137)
Cost, end of year	1,297	2,562	741	354	4,954
Accumulated impairment, beginning of year	(140)	(1,101)	–	–	(1,241)
Changes in foreign exchange rates	7	50	–	–	57
Accumulated impairment, end of year	(133)	(1,051)	–	–	(1,184)
Carrying value, end of year	1,164	1,511	741	354	3,770

December 31, 2018	Brands, trademarks and trade names	Customer contract-related	Mutual fund management contracts	Shareholders' portion of acquired future participating account profit	Total
Cost, beginning of year	1,288	2,495	741	354	4,878
Changes in foreign exchange rates	42	170	–	–	212
Cost, end of year	1,330	2,665	741	354	5,090
Accumulated impairment, beginning of year	(132)	(1,019)	–	–	(1,151)
Changes in foreign exchange rates	(8)	(82)	–	–	(90)
Accumulated impairment, end of year	(140)	(1,101)	–	–	(1,241)
Carrying value, end of year	1,190	1,564	741	354	3,849

NOTE 11 Goodwill and Intangible Assets (continued)

Finite life intangible assets

December 31, 2019	Technology and software	Customer contract-related	Other	Total
Cost, beginning of year	1,944	1,059	236	3,239
Business acquisitions	2	2	–	4
Additions	292	11	25	328
Disposal	(25)	–	(3)	(28)
Changes in foreign exchange rates	(54)	(27)	(3)	(84)
Cost, end of year	2,159	1,045	255	3,459
Accumulated amortization, beginning of year	(1,138)	(587)	(134)	(1,859)
Amortization	(191)	(57)	(10)	(258)
Disposal	5	–	2	7
Changes in foreign exchange rates	41	11	1	53
Accumulated amortization, end of year	(1,283)	(633)	(141)	(2,057)
Carrying value, end of year	876	412	114	1,402

December 31, 2018	Technology and software	Customer contract-related	Other	Total
Cost, beginning of year	1,612	986	221	2,819
Additions	289	35	16	340
Disposal	(13)	–	(4)	(17)
Changes in foreign exchange rates	70	38	3	111
Other	(14)	–	–	(14)
Cost, end of year	1,944	1,059	236	3,239
Accumulated amortization, beginning of year	(935)	(505)	(125)	(1,565)
Amortization	(174)	(58)	(10)	(242)
Disposal	6	–	2	8
Changes in foreign exchange rates	(49)	(24)	(1)	(74)
Other	14	–	–	14
Accumulated amortization, end of year	(1,138)	(587)	(134)	(1,859)
Carrying value, end of year	806	472	102	1,380

NOTE 11 Goodwill and Intangible Assets (continued)

ALLOCATION TO CASH GENERATING UNITS

Goodwill and indefinite life intangible assets have been assigned to CGUs as follows:

	December 31, 2019			December 31, 2018		
	Goodwill	Intangible assets	Total	Goodwill	Intangible assets	Total
Lifeco						
Canada						
Group Customer	1,632	354	1,986	1,621	354	1,975
Individual Customer	2,808	619	3,427	2,791	619	3,410
Europe						
Insurance and Annuities	2,345	223	2,568	2,388	233	2,621
United States						
Financial Services	180	–	180	208	–	208
Asset Management	–	1,508	1,508	–	1,578	1,578
IGM						
IG Wealth Management	1,443	–	1,443	1,443	–	1,443
Mackenzie	1,251	1,003	2,254	1,251	1,003	2,254
Corporate	143	23	166	143	23	166
Other	108	40	148	101	39	140
	9,910	3,770	13,680	9,946	3,849	13,795

RECOVERABLE AMOUNT

Lifeco

For purposes of annual impairment testing, Lifeco allocates goodwill and indefinite life intangible assets to its CGUs. Any potential impairment of goodwill or indefinite life intangible assets is identified by comparing the recoverable amount to its carrying value. Recoverable amount is based on fair value less cost of disposal.

Fair value is initially assessed with reference to valuation multiples of comparable publicly traded financial institutions and previous business acquisition transactions. These valuation multiples may include price-to-earnings or price-to-book measures for life insurers and asset managers. This assessment may give regard to a variety of relevant considerations, including expected growth, risk and capital market conditions, among other factors. The valuation multiples used in assessing fair value represent Level 2 inputs.

In the fourth quarter of 2019, Lifeco conducted its annual impairment testing of goodwill and indefinite life intangible assets based on the September 30, 2019 asset balances. It was determined that the recoverable amounts of CGUs were in excess of their carrying values and there was no evidence of significant impairment.

Any reasonable changes in assumptions and estimates used in determining the recoverable amounts of the CGUs are unlikely to cause the carrying values to exceed their recoverable amounts.

NOTE 11 Goodwill and Intangible Assets (continued)

IGM Financial

IGM tests whether goodwill and indefinite life intangible assets are impaired by assessing the carrying amounts with the recoverable amounts. The recoverable amount of IGM's CGUs is based on the best available evidence of fair value less cost of disposal. Fair value is initially assessed with reference to valuation multiples of comparable publicly traded financial institutions and previous business acquisition transactions. These valuation multiples may include price-to-earnings or other conventionally used measures for investment managers or other financial service providers (multiples of value to assets under management, revenues, or other measures of profitability). This assessment may give regard to a variety of relevant considerations, including expected growth, risk and capital market conditions, among other factors. The valuation multiples used in assessing fair value represent Level 2 inputs.

The fair value less cost of disposal of IGM's CGUs was compared with the carrying amount and it was determined there was no impairment. Changes in assumptions and estimates used in determining the recoverable amounts of the CGUs can result in significant adjustments to the valuation of the CGUs.

NOTE 12 Segregated Funds and Other Structured Entities

Lifeco offers segregated fund products in Canada, the U.S. and Europe that are referred to as segregated funds, separate accounts and unit-linked funds in the respective markets. These funds are contracts issued by insurers to segregated fund policyholders where the benefit is directly linked to the performance of the investments, the risks or rewards of the fair value movements and net investment income is realized by the segregated fund policyholders. The segregated fund policyholders are required to select the segregated funds that hold a range of underlying investments. While Lifeco has legal title to the investments, there is a contractual obligation to pass along the investment results to the segregated fund policyholder and Lifeco segregates these investments from those of the corporation itself.

In Canada and the U.S., the segregated fund and separate account assets are legally separated from the general assets of Lifeco under the terms of the policyholder agreement and cannot be used to settle obligations of Lifeco. In Europe, the assets of the funds are functionally and constructively segregated from those of Lifeco. As a result of the legal and constructive arrangements of these funds, the assets and liabilities of these funds are presented as investments on account of segregated fund policyholders and with an equal liability titled insurance and investment contracts on account of segregated fund policyholders in the balance sheets.

In circumstances where the segregated funds are invested in structured entities and are deemed to control the entity, Lifeco has presented the non-controlling ownership interest within the segregated funds for the risk of policyholders as equal and offsetting amounts in the assets and liabilities. The amounts presented within are $1,147 million at December 31, 2019 ($864 million at December 31, 2018).

Within the statements of earnings, all segregated fund policyholders' income, including fair value changes and net investment income, is credited to the segregated fund policyholders and reflected in the assets and liabilities on account of segregated fund policyholders within the balance sheets. As these amounts do not directly impact the revenues and expenses of Lifeco, these amounts are not included separately in the statements of earnings.

NOTE 12 Segregated Funds and Other Structured Entities (continued)

SEGREGATED FUNDS AND GUARANTEE EXPOSURE

Lifeco offers retail segregated fund products, unitized with profits products and variable annuity products that provide for certain guarantees that are tied to the fair values of the investment funds. While these products are similar to mutual funds, there is a key difference from mutual funds as the segregated funds have certain guarantee features that protect the segregated fund policyholder from market declines in the underlying investments. These guarantees are Lifeco's primary exposure on these funds. Lifeco accounts for these guarantees within insurance and investment contract liabilities in the financial statements. In addition to Lifeco's exposure on the guarantees, the fees earned by Lifeco on these products are impacted by the fair value of these funds.

In Canada, Lifeco offers retail segregated fund products through Great-West Life, London Life and Canada Life. These products provide guaranteed minimum death benefits and guaranteed minimum accumulation on maturity benefits.

In the U.S., Lifeco offers group variable annuities with guaranteed minimum death benefits and guaranteed minimum withdrawal benefits through Great-West Life & Annuity. For the standalone guaranteed minimum death benefits business, most are a return of premium on death with the guarantee expiring at age 70.

In Europe, Lifeco offers unitized with profits products through Canada Life and unit-linked products with investment guarantees through Irish Life. These products are similar to segregated fund products, but include pooling of policyholders' funds and minimum credited interest rates.

Lifeco also offers guaranteed minimum withdrawal benefits products in Canada, the U.S. and Germany, and previously offered guaranteed minimum withdrawal benefits products in Ireland. Certain guaranteed minimum withdrawal benefits products offered by Lifeco offer levels of death and maturity guarantees. At December 31, 2019, the amount of guaranteed minimum withdrawal benefits products in force in Canada, the U.S., Ireland and Germany was $3,332 million ($4,169 million at December 31, 2018). The decrease was primarily due to U.S. business transferred to Protective Life under an indemnity reinsurance agreement effective June 1, 2019.

The following presents further details of the investments, determined in accordance with the relevant statutory reporting requirements of each region of Lifeco's operations, on account of segregated fund policyholders:

INVESTMENTS ON ACCOUNT OF SEGREGATED FUND POLICYHOLDERS

	December 31, 2019	December 31, 2018
Cash and cash equivalents	12,501	13,458
Bonds	44,973	42,142
Mortgage loans	2,670	2,746
Shares and units in unit trusts	104,330	89,853
Mutual funds	55,779	50,956
Investment properties	12,986	12,319
	233,239	211,474
Accrued income	373	380
Other liabilities	(3,737)	(3,191)
Non-controlling mutual fund interest	1,147	864
	231,022	209,527

NOTE 12 Segregated Funds and Other Structured Entities (continued)

INSURANCE AND INVESTMENT CONTRACTS ON ACCOUNT OF SEGREGATED FUND POLICYHOLDERS

	Years ended December 31,	
	2019	2018
Balance, beginning of year	209,527	217,357
Additions (deductions):		
Policyholder deposits	24,685	24,475
Net investment income	3,331	3,611
Net realized capital gains on investments	4,265	4,876
Net unrealized capital gains (losses) on investments	19,658	(16,757)
Unrealized gains (losses) due to changes in foreign exchange rates	(6,539)	5,472
Policyholder withdrawals	(24,721)	(26,271)
Business acquisition	–	950
Segregated fund investment in General Fund	(4)	69
General Fund investment in segregated fund	105	(219)
Net transfer from General Fund	23	21
Non-controlling mutual fund interest	283	(738)
Transfer from assets held for sale	409	–
Assets held for sale [Note 4]	–	(3,319)
	21,495	(7,830)
Balance, end of year	231,022	209,527

INVESTMENT INCOME ON ACCOUNT OF SEGREGATED FUND POLICYHOLDERS

	Years ended December 31,	
	2019	2018
Net investment income	3,331	3,611
Net realized capital gains on investments	4,265	4,876
Net unrealized capital gains (losses) on investments	19,658	(16,757)
Unrealized gains (losses) due to changes in foreign exchange rates	(6,539)	5,472
Total	20,715	(2,798)
Change in insurance and investment contract liabilities on account of segregated fund policyholders	20,715	(2,798)
Net	–	–

INVESTMENTS ON ACCOUNT OF SEGREGATED FUND POLICYHOLDERS (by fair value hierarchy level)

	December 31, 2019			
	Level 1	Level 2	Level 3	Total
Investments on account of segregated fund policyholders [1]	146,861	73,173	13,988	234,022

[1] Excludes other liabilities, net of other assets, of $3,000 million.

	December 31, 2018			
	Level 1	Level 2	Level 3	Total
Investments on account of segregated fund policyholders [1]	131,603	67,199	13,235	212,037
Investments on account of segregated fund policyholders held for sale [2]	3,297	5	9	3,311
Total investments on account of segregated fund policyholders measured at fair value	134,900	67,204	13,244	215,348

[1] Excludes other liabilities, net of other assets, of $2,510 million.

[2] Excludes other assets, net of other liabilities, of $8 million.

In 2019 certain foreign equity holdings valued at $153 million were transferred from Level 1 to Level 2 ($1,842 million were transferred from Level 2 to Level 1 at December 31, 2018), primarily based on Lifeco's change in use of inputs in addition to quoted prices in active markets for certain foreign equity holdings at year-end. Level 2 assets include those assets where fair value is not available from normal market pricing sources where inputs are utilized in addition to quoted prices in active markets and where Lifeco does not have access to the underlying asset details within an investment fund.

NOTE 12 Segregated Funds and Other Structured Entities (continued)

As at December 31, 2019, $8,471 million ($7,770 million at December 31, 2018) of the segregated funds were invested in funds managed by IG Wealth Management and Mackenzie Investments, subsidiaries of IGM and related parties.

The following table presents additional information about Lifeco's investments on account of segregated fund policyholders for which Lifeco has utilized Level 3 inputs to determine fair value:

	December 31, 2019			December 31, 2018		
	Investments on account of segregated fund policyholders	Investments on account of segregated fund policyholders held for sale	Total	Investments on account of segregated fund policyholders	Investments on account of segregated fund policyholders held for sale	Total
Balance, beginning of year						
As previously reported	13,235	9	13,244	12,572	–	12,572
Change in accounting policy [1]	136	–	136	–	–	–
Restated balance, beginning of year	13,371	9	13,380	12,572	–	12,572
Total gains (losses) included in segregated fund investment income	141	(1)	140	404	–	404
Purchases	760	–	760	651	–	651
Sales	(284)	(8)	(292)	(425)	–	(425)
Transfers into Level 3	–	–	–	51	–	51
Transfers out of Level 3	–	–	–	(9)	–	(9)
Transfers to assets held for sale	–	–	–	(9)	9	–
Balance, end of year	13,988	–	13,988	13,235	9	13,244

[1] The segregated funds adopted IFRS 16, which resulted in equal and offsetting right-of-use assets and lease liabilities of $136 million being recorded in investment properties and other liabilities within investments on account of segregated fund policyholders as of January 1, 2019. The adoption of IFRS 16 had no net impact on investments on account of segregated fund policyholders as of January 1, 2019.

Transfers into Level 3 are due primarily to decreased observability of inputs in valuation methodologies. Transfers out of Level 3 are due primarily to increased observability of inputs in valuation methodologies as evidenced by corroboration of market prices with multiple pricing vendors.

In addition to the segregated funds, Lifeco has interests in a number of structured unconsolidated entities including mutual funds, open-ended investment companies, and unit trusts. These entities are created as investment strategies for its unit holders based on the directive of each individual fund.

Some of these funds are managed by related parties of Lifeco and Lifeco receives management fees related to these services. Management fees can be variable due to the performance of factors, such as markets or industries, in which the fund invests. Fee income derived in connection with the management of investment funds generally increases or decreases in direct relationship with changes of assets under management, which is affected by prevailing market conditions, and the inflow and outflow of client assets.

Factors that could cause assets under management and fees to decrease include declines in equity markets, changes in fixed income markets, changes in interest rates and defaults, redemptions and other withdrawals, political and other economic risks, changing investment trends and relative investment performance. The risk is that fees may vary but expenses and recovery of initial expenses are relatively fixed, and market conditions may cause a shift in asset mix potentially resulting in a change in revenue.

Fee income earned by Lifeco resulting from Lifeco's interests in segregated funds and other structured entities was $4,919 million for the year ended December 31, 2019 ($4,786 million in 2018).

Included within other assets (Note 10) at December 31, 2019 is $957 million ($733 million at December 31, 2018) of investments by Lifeco in bonds and shares of Putnam-sponsored funds and $135 million ($110 million at December 31, 2018) of investments in shares of sponsored unit trusts in Europe.

NOTE 13 Insurance and Investment Contract Liabilities

INSURANCE AND INVESTMENT CONTRACT LIABILITIES

	December 31, 2019			December 31, 2018		
	Gross liability	Reinsurance assets [1]	Net	Gross liability	Reinsurance assets	Net
Insurance contract liabilities	174,521	20,580	153,941	166,720	6,126	160,594
Investment contract liabilities	1,656	127	1,529	1,711	–	1,711
	176,177	20,707	155,470	168,431	6,126	162,305

[1] Includes reinsurance assets recognized upon the completion of the reinsurance transaction with Protective Life (Note 3).

COMPOSITION OF INSURANCE AND INVESTMENT CONTRACT LIABILITIES AND RELATED SUPPORTING ASSETS

The composition of insurance and investment contract liabilities of Lifeco is as follows:

	December 31, 2019			December 31, 2018		
	Gross liability	Reinsurance assets	Net	Gross liability	Reinsurance assets	Net
Participating						
Canada	42,271	(247)	42,518	38,078	(351)	38,429
United States	11,329	12	11,317	11,871	14	11,857
Europe	1,019	–	1,019	978	–	978
Non-participating						
Canada	32,668	498	32,170	30,174	500	29,674
United States	32,360	15,091	17,269	31,042	271	30,771
Europe	56,530	5,353	51,177	56,288	5,692	50,596
	176,177	20,707	155,470	168,431	6,126	162,305

The composition of the assets supporting liabilities and equity of Lifeco is as follows:

December 31, 2019	Bonds	Mortgage loans	Shares	Investment properties	Other	Total
Participating liabilities						
Canada	19,484	9,655	6,142	2,472	4,518	42,271
United States	5,128	626	–	–	5,575	11,329
Europe	716	20	63	12	208	1,019
Non-participating liabilities						
Canada	20,270	4,111	2,237	407	5,643	32,668
United States	14,311	2,678	–	–	15,371	32,360
Europe	35,546	5,442	299	2,672	12,571	56,530
Other, including segregated funds	15,630	902	902	119	231,894	249,447
Total equity	3,943	834	732	205	19,829	25,543
Total carrying value	115,028	24,268	10,375	5,887	295,609	451,167
Fair value	117,000	25,146	10,367	5,887	295,609	454,009

December 31, 2018	Bonds	Mortgage loans	Shares	Investment properties	Other	Total
Participating liabilities						
Canada	18,044	9,145	5,397	1,908	3,584	38,078
United States	5,140	749	–	–	5,982	11,871
Europe	708	24	68	18	160	978
Non-participating liabilities						
Canada	19,204	3,845	1,916	196	5,013	30,174
United States	25,324	4,993	–	–	725	31,042
Europe	35,174	4,511	191	2,795	13,617	56,288
Other, including segregated funds	15,504	1,038	940	99	214,279	231,860
Total equity	5,764	709	778	202	19,945	27,398
Total carrying value	124,862	25,014	9,290	5,218	263,305	427,689
Fair value	125,759	25,411	9,229	5,218	263,305	428,922

NOTE 13 Insurance and Investment Contract Liabilities (continued)

Cash flows of assets supporting insurance and investment contract liabilities are matched within reasonable limits. Changes in the fair values of these assets are essentially offset by changes in the fair value of insurance and investment contract liabilities.

Changes in the fair values of assets backing capital and surplus, less related income taxes, would result in a corresponding change in surplus over time in accordance with investment accounting policies.

CHANGE IN INSURANCE CONTRACT LIABILITIES

The change in insurance contract liabilities during the year was the result of the following business activities and changes in actuarial estimates:

	Participating			Non-participating			
December 31, 2019	Gross liability	Reinsurance assets	Net	Gross liability	Reinsurance assets	Net	Total net
Balance, beginning of year	50,927	(337)	51,264	115,793	6,463	109,330	160,594
Impact of new business	59	–	59	5,339	(266)	5,605	5,664
Normal change in in-force business	4,138	25	4,113	1,784	645	1,139	5,252
Management actions and changes in assumptions	67	77	(10)	(117)	(73)	(44)	(54)
Business movement from/to external parties	–	–	–	(176)	14,802	(14,978)	(14,978)
Impact of foreign exchange rate changes	(572)	–	(572)	(2,721)	(756)	(1,965)	(2,537)
Balance, end of year	54,619	(235)	54,854	119,902	20,815	99,087	153,941

	Participating			Non-participating			
December 31, 2018	Gross liability	Reinsurance assets	Net	Gross liability	Reinsurance assets	Net	Total net
Balance, beginning of year	48,856	(341)	49,197	110,668	5,386	105,282	154,479
Impact of new business	24	–	24	6,680	169	6,511	6,535
Normal change in in-force business	1,413	7	1,406	(6,553)	(243)	(6,310)	(4,904)
Management actions and changes in assumptions	(29)	(5)	(24)	(700)	25	(725)	(749)
Business movement from/to external parties	–	–	–	(134)	(2)	(132)	(132)
Retirement Advantage acquisition	–	–	–	2,572	931	1,641	1,641
Transfer of liabilities to held for sale [Note 4]	(281)	–	(281)	(589)	–	(589)	(870)
Impact of foreign exchange rate changes	944	2	942	3,849	197	3,652	4,594
Balance, end of year	50,927	(337)	51,264	115,793	6,463	109,330	160,594

Under IFRS, movement in the fair value of the supporting assets is a major factor in the movement of insurance contract liabilities. Changes in the fair value of assets are largely offset by corresponding changes in the fair value of liabilities. The change in the value of the insurance contract liabilities associated with the change in the value of the supporting assets is included in the normal change in the in-force business above.

2019

In July 2019, the Canadian Actuarial Standards Board published revised standards for the valuation of insurance contract liabilities, with an effective date of October 15, 2019. The revised standards include decreases to ultimate reinvestment rates and revised calibration criteria for stochastic risk-free interest rates.

In 2019, the major contributor to the decrease in net insurance contract liabilities was the business movement to external parties of $14,978 million, which includes the transfer to Protective Life, and the net impact of foreign exchange rate changes of $2,537 million. This was partially offset by increases due to the impact of new business of $5,664 million, and normal change in the in-force business of $5,252 million.

Net non-participating insurance contract liabilities decreased by $44 million in 2019 due to management actions and assumption changes including a $241 million decrease in Europe and Reinsurance, partially offset by a $145 million increase in Canada and a $52 million increase in the United States.

NOTE 13 Insurance and Investment Contract Liabilities (continued)

The increase in Canada was primarily due to updated policyholder behaviour assumptions of $254 million, and updated longevity assumptions of $54 million partially offset by decreases due to updated morbidity assumptions of $169 million and updated economic assumptions of $6 million, which includes the net impact of new standards.

The decrease in Europe was primarily due to updated longevity assumptions of $299 million, and updated economic assumptions of $101 million, which includes the net impact of new standards, partially offset by increases due to updated life mortality assumptions of $80 million, and updated expenses and tax assumptions of $59 million.

The increase in the United States was primarily due to updated expenses and tax assumptions of $45 million, and updated life mortality assumptions of $43 million partially offset by decreases due to updated economic assumptions of $34 million, which includes the net impact of new standards.

Net participating insurance contract liabilities decreased by $10 million in 2019 due to management actions and assumption changes. The decrease was primarily due to updated provisions for future policyholder dividends of $2,232 million, updated expenses and tax assumptions of $535 million, and modelling refinements of $198 million. This was partially offset by increases due to updated economic assumptions of $1,884 million, updated policyholder behaviour assumptions of $935 million and updated life mortality assumptions of $153 million.

2018

In 2018, the major contributors to the increase in net insurance contract liabilities were the impact of new business of $6,535 million, the acquisition of Retirement Advantage of $1,641 million and the net impact of foreign exchange rate changes of $4,594 million. This was partially offset by the decrease due to normal change in the in-force business of $4,904 million, the transfer of U.K. heritage business to Scottish Friendly of $870 million and management actions and changes in assumptions of $749 million.

Net non-participating insurance contract liabilities decreased by $725 million in 2018 due to Lifeco's management actions and assumption changes including a $562 million decrease in Europe and Reinsurance, a $107 million decrease in Canada and a $56 million decrease in the United States.

The decrease in Canada was primarily due to updated economic assumptions of $197 million, updated provision for claims of $19 million and updated provision for experience rating refunds of $10 million, partially offset by increases due to updated morbidity assumptions of $62 million, updated policyholder behaviour assumptions of $46 million and updated life mortality assumptions of $10 million.

The decrease in Europe was primarily due to updated longevity assumptions of $372 million, updated life mortality assumptions of $129 million, modelling refinements of $41 million, updated economic assumptions of $39 million, updated morbidity assumptions of $25 million, and updated expense and tax assumptions of $21 million, partially offset by increases due to updated policyholder behaviour assumptions of $65 million.

The decrease in the United States was primarily due to updated policyholder behaviour assumptions of $63 million, updated life mortality assumptions of $16 million and updated longevity assumptions of $15 million, partially offset by increases due to modelling refinements of $21 million and updated economic assumptions of $13 million.

Net participating insurance contract liabilities decreased by $24 million in 2018 due to Lifeco's management actions and assumption changes. The decrease was primarily due to modelling refinements of $229 million, expense and tax assumptions of $133 million and updated life mortality assumptions of $5 million, partially offset by increases due to updated provisions for future policyholder dividends of $232 million, lower investment returns of $101 million and updated policyholder behaviour assumptions of $8 million.

NOTE 13 Insurance and Investment Contract Liabilities (continued)

CHANGE IN INVESTMENT CONTRACT LIABILITIES MEASURED AT FAIR VALUE

			December 31, 2019	December 31, 2018
	Gross liability	Reinsurance assets	Net	Net
Balance, beginning of year	1,711	–	1,711	1,841
Normal change in in-force business	(87)	38	(125)	(190)
Investment experience	103	(23)	126	(26)
Management actions and changes in assumptions	(4)	–	(4)	15
Business movement from/to external parties	–	116	(116)	–
Transfer of liabilities to held for sale [Note 4]	–	–	–	(27)
Impact of foreign exchange rate changes	(67)	(4)	(63)	98
Balance, end of year	1,656	127	1,529	1,711

The carrying value of investment contract liabilities approximates their fair value. No investment contract liabilities were reinsured in 2018.

GROSS PREMIUM INCOME

	December 31, 2019	December 31, 2018
Direct premiums	25,398	26,062
Assumed reinsurance premiums	17,847	13,901
Total	43,245	39,963

GROSS POLICYHOLDER BENEFITS

	December 31, 2019	December 31, 2018
Direct	19,643	17,830
Assumed reinsurance	18,126	14,527
Total	37,769	32,357

ACTUARIAL ASSUMPTIONS

In the computation of insurance contract liabilities, valuation assumptions have been made regarding rates of mortality/morbidity, investment returns, levels of operating expenses, rates of policy termination and rates of utilization of elective policy options or provisions. The valuation assumptions use best estimates of future experience together with a margin for adverse deviation. These margins are necessary to provide for possibilities of misestimation and future deterioration in the best estimate assumptions and provide reasonable assurance that insurance contract liabilities cover a range of possible outcomes. Margins are reviewed periodically for continued appropriateness.

NOTE 13 Insurance and Investment Contract Liabilities (continued)

The methods for arriving at these valuation assumptions are outlined below:

Actuarial assumptions	Methods
Mortality	A life insurance mortality study is carried out annually for each major block of insurance business. The results of each study are used to update Lifeco's experience valuation mortality tables for that business. When there is insufficient data, use is made of the latest industry experience to derive an appropriate valuation mortality assumption. Improvement scales for life insurance and annuitant mortality are updated periodically based on population and industry studies, product-specific considerations, as well as professional guidance. In addition, appropriate provisions have been made for future mortality deterioration on term insurance. Annuitant mortality is also studied regularly and the results are used to modify established industry experience annuitant mortality tables.
Morbidity	Lifeco uses industry-developed experience tables modified to reflect emerging Lifeco experience. Both claim incidence and termination are monitored regularly and emerging experience is factored into the current valuation.
Property and casualty reinsurance	Insurance contract liabilities for property and casualty reinsurance written by London Reinsurance Group Inc. (LRG), a subsidiary of London Life, are determined using accepted actuarial practices for property and casualty insurers in Canada. The insurance contract liabilities are based on cession statements provided by ceding companies. In addition, insurance contract liabilities also include an amount for incurred but not reported losses which may differ significantly from the ultimate loss development. The estimates and underlying methodology are continually reviewed and updated, and adjustments to estimates are reflected in net earnings. LRG analyzes the emergence of claims experience against expected assumptions for each reinsurance contract separately and at the portfolio level. If necessary, a more in-depth analysis is undertaken of the cedant experience.
Investment returns	The assets which correspond to the different liability categories are segmented. For each segment, projected cash flows from the current assets and liabilities are used in the CALM to determine insurance contract liabilities. Cash flows from assets are reduced to provide for asset default losses. Testing under several interest rate and equity scenarios (including increasing and decreasing rates) is done to provide for reinvestment risk (refer to Note 22).
Expenses	Contractual policy expenses (e.g., sales commissions) and tax expenses are reflected on a best estimate basis. Expense studies for indirect operating expenses are updated regularly to determine an appropriate estimate of future operating expenses for the liability type being valued. Improvements in unit operating expenses are not projected. An inflation assumption is incorporated in the estimate of future operating expenses consistent with the interest rate scenarios projected under the CALM as inflation is assumed to be correlated with new money interest rates.
Policy termination	Studies to determine rates of policy termination are updated regularly to form the basis of this estimate. Industry data is also available and is useful where Lifeco has no experience with specific types of policies or its exposure is limited. Lifeco's most significant exposures are in respect of the T-100 and Level Cost of Insurance Universal Life products in Canada and policy renewal rates at the end of term for renewable term policies in Canada and Reinsurance. Industry experience has guided Lifeco's assumptions for these products as Lifeco's own experience is very limited.
Utilization of elective policy options	There are a wide range of elective options embedded in the policies issued by Lifeco. Examples include term renewals, conversion to whole life insurance (term insurance), settlement annuity purchase at guaranteed rates (deposit annuities) and guarantee resets (segregated fund maturity guarantees). The assumed rates of utilization are based on Lifeco or industry experience when it exists and, when not, on judgment considering incentives to utilize the option. Generally, whenever it is clearly in the best interests of an informed policyholder to utilize an option, then it is assumed to be elected.
Policyholder dividends and adjustable policy features	Future policyholder dividends and other adjustable policy features are included in the determination of insurance contract liabilities with the assumption that policyholder dividends or adjustable benefits will change in the future in response to the relevant experience. The dividend and policy adjustments are determined consistent with policyholders' reasonable expectations, such expectations being influenced by the participating policyholder dividend policies and/or policyholder communications, marketing material and past practice. It is Lifeco's expectation that changes will occur in policyholder dividend scales or adjustable benefits for participating or adjustable business respectively, corresponding to changes in the best estimate assumptions, resulting in an immaterial net change in insurance contract liabilities. Where underlying guarantees may limit the ability to pass all of this experience back to the policyholder, the impact of this non-adjustability on shareholders' earnings is reflected in the changes in best estimate assumptions above.

NOTE 13 Insurance and Investment Contract Liabilities (continued)

RISK MANAGEMENT

Insurance risk

Insurance risk is the risk that the insured event occurs and that there are large deviations between expected and actual actuarial assumptions, including mortality, persistency, longevity, morbidity, expense variations and investment returns.

Lifeco is in the business of accepting risk associated with insurance contract liabilities. Lifeco's objective is to mitigate its exposure to risk arising from these contracts through product design, product and geographical diversification, the implementation of its underwriting strategy guidelines, and through the use of reinsurance arrangements.

The following table provides information about Lifeco's insurance contract liabilities' sensitivities to its management's best estimate of the approximate impact as a result of changes in assumptions used to determine Lifeco's liability associated with these contracts.

	Increase (decrease) in net earnings	
	2019	2018
Mortality – 2% increase	(279)	(270)
Annuitant mortality – 2% decrease	(601)	(457)
Morbidity – 5% adverse change	(253)	(271)
Investment returns		
Parallel shift in yield curve		
1% increase	–	–
1% decrease	–	–
Change in interest rates		
1% increase	175	115
1% decrease	(619)	(465)
Change in equity markets		
10% increase	87	73
10% decrease	(129)	(266)
Change in best estimate return assumptions for equities		
1% increase	509	476
1% decrease	(585)	(539)
Expenses – 5% increase	(125)	(128)
Policy termination and renewal – 10% adverse change	(813)	(649)

Concentration risk may arise from geographic regions, accumulation of risks and market risk. The concentration of insurance risk before and after reinsurance by geographic region is described below.

	December 31, 2019			December 31, 2018		
	Gross liability	Reinsurance assets	Net	Gross liability	Reinsurance assets	Net
Canada	74,939	251	74,688	68,252	149	68,103
United States	43,689	15,103	28,586	42,913	285	42,628
Europe	57,549	5,353	52,196	57,266	5,692	51,574
	176,177	20,707	155,470	168,431	6,126	162,305

Reinsurance risk

Maximum limits per insured life benefit amount (which vary by line of business) are established for life and health insurance and reinsurance is purchased for amounts in excess of those limits.

Reinsurance costs and recoveries as defined by the reinsurance agreement are reflected in the valuation with these costs and recoveries being appropriately calibrated to the direct assumptions.

Reinsurance contracts do not relieve Lifeco from its obligations to policyholders. Failure of reinsurers to honour their obligations could result in losses to Lifeco. Lifeco evaluates the financial condition of its reinsurers to minimize its exposure to significant losses from reinsurer insolvencies.

Certain of the reinsurance contracts are on a funds-withheld basis where Lifeco retains the assets supporting the reinsured insurance contract liabilities, thus minimizing the exposure to significant losses from reinsurer insolvency on those contracts.

NOTE 14 Obligations to Securitization Entities

IGM securitizes residential mortgages through the Canada Mortgage and Housing Corporation (CMHC)-sponsored National Housing Act Mortgage-Backed Securities (NHA MBS) Program and Canada Mortgage Bond (CMB) Program and through Canadian bank-sponsored asset-backed commercial paper (ABCP) programs. These transactions do not meet the requirements for derecognition as IGM retains prepayment risk and certain elements of credit risk. Accordingly, IGM has retained these mortgages on its balance sheets and has recorded offsetting liabilities for the net proceeds received as obligations to securitization entities which are carried at amortized cost.

IGM earns interest on the mortgages and pays interest on the obligations to securitization entities. As part of the CMB transactions, IGM enters into a swap transaction whereby IGM pays coupons on CMBs and receives investment returns on the NHA MBS and the reinvestment of repaid mortgage principal. A component of this swap, related to the obligation to pay CMB coupons and receive investment returns on repaid mortgage principal, is recorded as a derivative and had a negative fair value of $1 million at December 31, 2019 (a positive fair value of $5 million in 2018).

Under the NHA MBS and CMB Programs, IGM has an obligation to make timely payments to security holders regardless of whether amounts are received from mortgagors. All mortgages securitized under the NHA MBS and CMB Programs are insured by CMHC or another approved insurer under the program. As part of the ABCP transactions, IGM has provided cash reserves for credit enhancement which are carried at cost. Credit risk is limited to these cash reserves and future net interest income as the ABCP trusts have no recourse to IGM's other assets for failure to make payments when due. Credit risk is further limited to the extent these mortgages are insured.

	December 31, 2019			December 31, 2018		
	Securitized mortgages	Obligations to securitization entities	Net	Securitized mortgages	Obligations to securitization entities	Net
Carrying value						
NHA MBS and CMB Programs	3,891	3,939	(48)	4,247	4,251	(4)
Bank-sponsored ABCP	2,939	2,975	(36)	3,102	3,119	(17)
Total	6,830	6,914	(84)	7,349	7,370	(21)
Fair value	6,908	6,997	(89)	7,405	7,437	(32)

The carrying value of obligations to securitization entities, which is recorded net of issue costs, includes principal payments received on securitized mortgages that are not due to be settled until after the reporting period. Issue costs are amortized over the life of the obligation using an effective interest method.

NOTE 15 Debentures and Other Debt Instruments

	December 31, 2019		December 31, 2018	
	Carrying value	Fair value	Carrying value	Fair value
DEBENTURES				
Power Financial				
6.90% debentures due March 11, 2033, unsecured	250	343	250	327
Lifeco				
4.65% debentures due August 13, 2020, unsecured	500	508	500	516
2.50% debentures due April 18, 2023 (€500 million), unsecured	728	788	778	837
1.75% debentures due December 7, 2026 (€500 million), unsecured	725	785	774	781
3.337% debentures due February 28, 2028, unsecured	498	526	497	502
6.40% subordinated debentures due December 11, 2028, unsecured	100	128	100	126
6.74% debentures due November 24, 2031, unsecured	194	278	194	261
6.67% debentures due March 21, 2033, unsecured	393	557	393	522
6.625% deferrable debentures due November 15, 2034 (US$175 million), unsecured (redeemed during 2019)	–	–	235	266
5.998% debentures due November 16, 2039, unsecured	342	487	342	442
7.529% capital trust debentures due June 30, 2052 (face value of $150 million), unsecured	159	221	159	209
IGM Financial				
3.44% debentures due January 26, 2027, unsecured	400	413	400	397
6.65% debentures due December 13, 2027, unsecured	125	155	125	153
7.45% debentures due May 9, 2031, unsecured	150	205	150	197
7.00% debentures due December 31, 2032, unsecured	175	236	175	226
7.11% debentures due March 7, 2033, unsecured	150	204	150	195
6.00% debentures due December 10, 2040, unsecured	200	264	200	244
4.56% debentures due January 25, 2047, unsecured	200	227	200	206
4.115% debentures due December 9, 2047, unsecured	250	265	250	239
4.174% debentures due July 13, 2048, unsecured	200	214	200	193
4.206% debentures due March 21, 2050, unsecured	250	271	–	–
Debentures of IGM held by Lifeco as investments	(101)	(119)	(86)	(97)
Total debentures	5,888	6,956	5,986	6,742
OTHER DEBT INSTRUMENTS				
Lifeco				
Commercial paper and other short-term debt instruments with interest rates from 1.828% to 2.089% (2.511% to 2.693% at December 31, 2018), unsecured	130	130	135	135
Revolving credit facility with interest equal to LIBOR plus 0.70% (US$230 million)(US$250 million at December 31, 2018), unsecured	299	299	340	340
Senior notes due May 17, 2028, bearing an interest rate of 4.047% (US$300 million), unsecured	388	430	405	415
Senior notes due June 3, 2047, bearing an interest rate of 4.15% (US$700 million), unsecured	894	993	934	888
Senior notes due May 17, 2048, bearing an interest rate of 4.581% (US$500 million), unsecured	643	749	673	685
Other subsidiaries				
Other various debt instruments, secured [1]	8	8	19	19
Total other debt instruments	2,362	2,609	2,506	2,482
	8,250	9,565	8,492	9,224

[1] Secured by the assets of Other subsidiaries; the debt instruments are non-recourse to the Corporation.

NOTE 15 Debentures and Other Debt Instruments (continued)

LIFECO

On December 10, 2019, Great-West Life & Annuity Insurance Capital, LP redeemed all $232 million (US$175 million) aggregate principal amount 6.625% deferrable debentures due November 15, 2034 at a redemption price equal to 100% of the principal amount of the debentures, plus accrued and unpaid interest up to but excluding the redemption date.

On February 28, 2018, Lifeco issued $500 million of 10-year 3.337% debentures at par, maturing on February 28, 2028. Interest on the debentures is payable semi-annually in arrears on February 28 and August 28, commencing August 28, 2018 until the date on which the debentures are repaid. The debentures are redeemable at any time prior to November 28, 2027 in whole or in part at the greater of the Canada Yield Price and par, and on or after November 28, 2027 in whole or in part at par, together in each case with accrued and unpaid interest.

On May 17, 2018, Great-West Lifeco Finance 2018, LP issued $384 million (US$300 million) 4.047% senior notes due May 17, 2028 and $640 million (US$500 million) 4.581% senior notes due May 17, 2048. The tranches of senior notes are fully and unconditionally guaranteed by Lifeco.

Capital Trust Debentures

Canada Life Capital Trust (CLCT), a trust established by Canada Life, had issued $150 million of Canada Life Capital Securities – Series B (CLiCS – Series B), the proceeds of which were used by CLCT to purchase Canada Life senior debentures in the amount of $150 million.

Distributions and interest on the capital trust debentures are classified as financing charges in the statements of earnings (Note 24). The fair value for capital trust securities is determined by the bid-ask price.

Subject to regulatory approval, CLCT may redeem the CLiCS – Series B, in whole or in part, at any time.

IGM FINANCIAL

On March 20, 2019, IGM issued $250 million of 4.206% debentures maturing March 21, 2050. The net proceeds were used by IGM to fund the redemption, on April 30, 2019, of its issued and outstanding 5.90% Non-Cumulative First Preferred Shares, Series B for $150 million, and for general corporate purposes.

On March 7, 2018, IGM's 6.58% $150 million debentures matured at their principal amount together with accrued interest.

On July 11, 2018, IGM issued $200 million of 4.174% debentures maturing July 13, 2048. Interest on debentures is payable semi-annually in arrears on January 13 and July 13, commencing January 13, 2019, until the date on which the debentures are repaid. The debentures are redeemable at any time prior to January 13, 2048 in whole or in part at the greater of the Canada Yield Price and par, and on or after January 13, 2048 in whole or in part at par, together in each case with accrued and unpaid interest. On August 10, 2018, the net proceeds were used by IGM, together with a portion of its existing internal cash resources, to fund the early redemption of all of its $375 million 7.35% debentures due April 8, 2019. A premium of $11 million was paid on the early redemption and was recognized within financing charges in the statements of earnings.

CHANGES IN DEBENTURES AND OTHER DEBT INSTRUMENTS

The table below details changes in the Corporation's debentures and other debt instruments arising from financing activities, including both cash and non-cash changes.

	December 31, 2019	December 31, 2018
Balance, beginning of the year	8,492	8,128
Issue of debentures and senior notes	250	1,712
Redemption of debentures	(232)	(1,621)
Increase in other debt instruments	1	38
Decrease in other debt instruments	(39)	(1)
Changes in foreign exchange rates and other	(222)	236
Balance, end of year	8,250	8,492

NOTE 15 Debentures and Other Debt Instruments (continued)

The principal repayments on debentures and other debt instruments in each of the next five years and thereafter are as follows:

2020	937
2021	–
2022	–
2023	730
2024	–
Thereafter	6,623

NOTE 16 Other Liabilities

	December 31, 2019	December 31, 2018
Accounts payable	3,785	3,644
Bank overdraft	379	457
Dividends and interest payable	462	472
Income taxes payable	466	457
Deferred income reserves	380	441
Deposits and certificates	886	622
Funds held under reinsurance contracts	1,433	1,367
Pension and other post-employment benefits [Note 25]	1,897	1,676
Lease liabilities	682	–
Limited-life fund units	125	37
Other	1,975	1,787
	12,470	10,960

Total Other liabilities of $7,963 million as at December 31, 2019 ($7,471 million as at December 31, 2018) are expected to be settled within 12 months.

LEASE LIABILITIES

The table below details changes in the Corporation's lease liabilities for the year ended December 31, 2019.

	December 31, 2019
Initial lease liabilities, January 1, 2019 [Note 2]	661
Additions	136
Modifications	(22)
Lease payments	(100)
Interest	27
Change in foreign exchange rates and other	(20)
Lease liabilities, end of year	682

The table below presents the contractual undiscounted cash flows for lease obligations in each of the next five years and thereafter:

2020	111
2021	99
2022	83
2023	67
2024	63
Thereafter	447
Total undiscounted lease liabilities at December 31, 2019	870

NOTE 17 Income Taxes

INCOME TAXES

The components of income tax expense recognized in the statements of earnings are:

	Years ended December 31, 2019	2018
Current taxes	399	538
Deferred taxes		
Origination and reversal of temporary differences	(2)	50
Tax expense arising from unrecognized tax losses and tax credits	217	16
Effect of change in tax rates or imposition of new taxes and other	(13)	(2)
	202	64
	601	602

The following table shows current and deferred taxes relating to items not recognized in the statements of earnings:

	December 31, 2019		December 31, 2018	
	Other comprehensive income	Equity	Other comprehensive income	Equity
Current taxes (recovery)	4	78	(2)	–
Deferred taxes (recovery)	(20)	20	(36)	(16)
	(16)	98	(38)	(16)

EFFECTIVE INCOME TAX RATE

The Corporation's effective income tax rate is derived as follows:

	Years ended December 31, 2019	2018
	%	%
Combined statutory Canadian federal and provincial tax rates	26.6	26.7
Increase (decrease) in the income tax rate resulting from:		
Non-taxable investment income	(4.5)	(5.2)
Lower effective tax rates on income not subject to tax in Canada	(8.4)	(7.5)
Share of earnings of investments in jointly controlled corporations and associates	(1.4)	(0.5)
Impact of rate changes on deferred taxes	(0.3)	–
Other [1]	3.9	0.9
Effective income tax rate	15.9	14.4

[1] Includes the impact of a decrease in the recognized deferred income tax asset of one of Lifeco's subsidiaries due to timing uncertainty in projected taxable income available to utilize certain restricted net operating losses which resulted in a $199 million charge and increased the effective income tax rate by 5.3%. This was partially offset by a $101 million benefit due to the resolution of an outstanding issue with a foreign tax authority which reduced the effective income tax rate by 2.7%.

NOTE 17 Income Taxes (continued)

DEFERRED TAXES

Composition and changes in net deferred taxes are as follows:

For the year ended December 31, 2019	Insurance and investment contract liabilities	Investments	Loss carry forwards	Intangible assets	Defined benefit plans	Tax credits and other	Total
Balance, beginning of year	(1,387)	(363)	1,393	(760)	354	312	(451)
Recognized in statements of earnings	362	(170)	(244)	(61)	(23)	(66)	(202)
Recognized in statements of comprehensive income	–	(25)	–	–	53	(8)	20
Recognized in statements of changes in equity	(20)	–	–	–	–	–	(20)
Business acquisitions	–	–	–	(1)	–	–	(1)
Foreign exchange rate changes and other	62	21	(48)	16	(15)	(36)	–
Balance, end of year	(983)	(537)	1,101	(806)	369	202	(654)

For the year ended December 31, 2018	Insurance and investment contract liabilities	Investments	Loss carry forwards	Intangible assets	Defined benefit plans	Tax credits and other	Total
Balance, beginning of year	(976)	(602)	1,147	(682)	361	262	(490)
Recognized in statements of earnings	(395)	223	150	(63)	(14)	35	(64)
Recognized in statements of comprehensive income	–	40	–	–	(5)	1	36
Recognized in statements of changes in equity	9	–	–	–	–	7	16
Business acquisitions	41	–	–	–	–	(8)	33
Foreign exchange rate changes and other	(66)	(24)	96	(15)	12	15	18
Balance, end of year	(1,387)	(363)	1,393	(760)	354	312	(451)

	December 31, 2019	December 31, 2018
Presented on the balance sheets as follows:		
Deferred tax assets	775	1,066
Deferred tax liabilities	(1,429)	(1,517)
	(654)	(451)

Management of the Corporation and of its subsidiaries assess the recoverability of the deferred tax asset carrying values based on future years' taxable income projections and believes the carrying values of the deferred tax assets as of December 31, 2019 are recoverable.

At December 31, 2019, a deferred tax asset of $1,065 million ($1,357 million at December 31, 2018) is recognized by Lifeco on tax loss carry forwards totalling $6,832 million ($8,568 million in 2018). Of this amount, $5,814 million expires between 2020 and 2039, while $1,018 million has no expiry date. Lifeco will realize this benefit in future years through a reduction in current income taxes payable.

A subsidiary of Lifeco has had a history of losses. The subsidiary has a net deferred tax asset balance of $478 million (US$367 million) as at December 31, 2019 composed principally of net operating losses and future deductions related to goodwill. During the year ended December 31, 2019, management of Lifeco determined that a $199 million (US$151 million) decrease in the recognized deferred income tax asset is appropriate due to timing uncertainty in projected taxable income available to utilize certain restricted net operating losses generated in the earliest loss years. The deferred income tax asset decrease resulted in a charge to income tax expense of $199 million (US$151 million) in the statement of earnings. Management of Lifeco has concluded that it is probable that the subsidiary and other historically profitable subsidiaries with which it files or intends to file a consolidated United States income tax return will generate sufficient taxable income to utilize the unused United States losses and deductions for which a deferred tax asset has been recognized.

NOTE 17 Income Taxes (continued)

As at December 31, 2019, the Corporation and its subsidiaries have non-capital losses of $1,757 million ($531 million in 2018) available to reduce future taxable income for which the benefits have not been recognized. Of this amount, $1,738 million expires from 2020 to 2039, while $19 million has no expiry date. In addition, the Corporation and its subsidiaries have capital loss carry forwards of $153 million ($151 million in 2018) that can be used indefinitely to offset future capital gains for which the benefits have not been recognized.

As at December 31, 2019, the Corporation and its subsidiaries have deductible temporary differences of $292 million ($194 million in 2018) for which the benefits have not been recognized. As at December 31, 2019 and 2018, no deferred tax liability was recognized in respect to temporary differences associated with investments in subsidiaries and jointly controlled corporations as the Corporation and its subsidiaries are able to control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.

NOTE 18 Stated Capital

AUTHORIZED

The authorized capital of Power Financial consists of an unlimited number of First Preferred Shares, issuable in series; an unlimited number of Second Preferred Shares, issuable in series; and an unlimited number of common shares.

ISSUED AND OUTSTANDING

	December 31, 2019		December 31, 2018	
	Number of shares	Stated capital	Number of shares	Stated capital
		$		$
First Preferred Shares (perpetual)				
Series A [i]	4,000,000	100	4,000,000	100
Series D [ii]	6,000,000	150	6,000,000	150
Series E [ii]	8,000,000	200	8,000,000	200
Series F [ii]	6,000,000	150	6,000,000	150
Series H [ii]	6,000,000	150	6,000,000	150
Series I [ii]	8,000,000	200	8,000,000	200
Series K [ii]	10,000,000	250	10,000,000	250
Series L [ii]	8,000,000	200	8,000,000	200
Series O [ii]	6,000,000	150	6,000,000	150
Series P [ii]	8,965,485	224	8,965,485	224
Series Q [ii]	2,234,515	56	2,234,515	56
Series R [ii]	10,000,000	250	10,000,000	250
Series S [ii]	12,000,000	300	12,000,000	300
Series T [ii]	8,000,000	200	8,000,000	200
Series V [ii]	10,000,000	250	10,000,000	250
		2,830		2,830
Common Shares				
Balance, beginning of year	714,096,479	833	713,871,479	826
Issued under Stock Option Plan	–	–	225,000	7
Substantial issuer bid				
Issuance through effect of Qualifying Holdco Alternative	467,839,296	1,466	–	–
Cancellation of shares	(467,839,296)	(910)	–	–
Purchase for cancellation	(49,999,973)	(97)	–	–
Balance, end of year	664,096,506	1,292	714,096,479	833

First Preferred Shares

[i] The Series A First Preferred Shares are entitled to a quarterly cumulative dividend, at a floating rate equal to one quarter of 70% of the average prime rates quoted by two major Canadian chartered banks and are redeemable at the Corporation's option, at $25.00 per share, together with all declared and unpaid dividends to, but excluding, the date of redemption.

NOTE 18 Stated Capital (continued)

[ii] The following First Preferred Shares series are entitled to non-cumulative preferential cash dividends payable quarterly. The Corporation may redeem for cash the First Preferred Shares in whole or in part, at the Corporation's option, with all declared and unpaid dividends to, but excluding, the date of redemption. The dividends and redemption terms are as follows:

First Preferred Shares		Cash dividends payable quarterly	Earliest issuer redemption date	Redemption price
		($/share)		($/share)
Non-cumulative, fixed rate				
Series D,	5.50%	0.343750	Currently redeemable	25.00
Series E,	5.25%	0.328125	Currently redeemable	25.00
Series F,	5.90%	0.368750	Currently redeemable	25.00
Series H,	5.75%	0.359375	Currently redeemable	25.00
Series I,	6.00%	0.375000	Currently redeemable	25.00
Series K,	4.95%	0.309375	Currently redeemable	25.00
Series L,	5.10%	0.318750	Currently redeemable	25.00
Series O,	5.80%	0.362500	Currently redeemable	25.00
Series R,	5.50%	0.343750	Currently redeemable	25.50
Series S,	4.80%	0.300000	Currently redeemable	25.75
Series V,	5.15%	0.321875	July 31, 2022	26.00
Non-cumulative, 5-year rate reset [1]				
Series P,	2.31%	0.144125	January 31, 2021	25.00
Series T,	4.22% [2]	0.263438	January 31, 2024	25.00
Non-cumulative, variable rate				
Series Q,	3-month Government of Canada Treasury Bill + 1.60% [3]	Variable	January 31, 2021	25.00

[1] The dividend rate will reset on the earliest issuer redemption date and every fifth year thereafter at a rate equal to the 5-year Government of Canada bond yield plus a reset spread (1.60% for Series P and 2.37% for Series T). The holders have the option to convert their shares into non-cumulative floating rate First Preferred Shares subject to certain conditions on the earliest redemption date and every fifth year thereafter at a rate equal to the 3-month Government of Canada Treasury Bill rate plus the reset spread indicated.

[2] On January 31, 2019, the Series T were subject to a dividend rate reset and the Series T shareholders were entitled to convert their shares into non-cumulative floating rate First Preferred Shares. None of the outstanding 8,000,000 Non-Cumulative 5-year Rate Reset First Preferred Shares, Series T were converted into Non-Cumulative Floating Rate First Preferred Shares, Series U. The dividend rate for the Series T shares was reset to an annual fixed rate of 4.215% or $0.263438 per share cash dividend payable quarterly.

[3] The holders have the option to convert their shares into Series P First Preferred Shares, subject to certain conditions, on January 31, 2021, and on every five years thereafter.

Common Shares

In 2019, no common shares were issued under the Corporation's Employee Stock Option Plan (225,000 common shares were issued in 2018 for a consideration of $7 million).

Dividends declared on the Corporation's common shares in 2019 were $1.822 per share ($1.732 per share in 2018).

Substantial Issuer Bid

On April 17, 2019, the Corporation completed its substantial issuer bid (the PFC SIB) and purchased for cancellation 49,999,973 of its common shares at a purchase price of $33.00 per common share for an aggregate amount of $1.65 billion. The excess paid under the PFC SIB over the stated capital of $1.55 billion was recognized as a reduction to retained earnings. Transaction costs incurred in connection with the PFC SIB of $5 million were recorded in retained earnings.

Related Party Transaction

As part of the PFC SIB, Power Corporation, the parent company of the Corporation, participated in the PFC SIB and tendered its Power Financial common shares on a proportionate basis and on a non-proportionate basis. As a result of the PFC SIB, Power Corporation's equity ownership in Power Financial decreased from 65.5% to 64.1% immediately subsequent to the PFC SIB. Power Corporation effected its tender offer through a Qualifying Holdco Alternative (as described in the offer), which the Corporation also offered to other shareholders, pursuant to which the Corporation issued and subsequently cancelled 467,839,296 common shares. This resulted in a net increase in stated capital of $556 million and a corresponding decrease in retained earnings, with no impact to equity.

NOTE 19 Share-Based Compensation

STOCK OPTION PLAN

Under Power Financial's Employee Stock Option Plan, 27,498,801 common shares are reserved for issuance. The plan requires that the exercise price of the option must not be less than the market value of a share on the date of the grant of the option. Generally, options granted vest over periods beginning no earlier than one year from the date of grant and no later than five years from the date of grant. Outstanding options, which are not fully vested, have the following vesting conditions:

Year of grant	Options	Vesting conditions
2015	147,112	Vest equally over a period of five years
2016	231,009	Vest equally over a period of five years
2016	532,974	Vest 50% after three years and 50% after four years
2017	1,471,665	Vest 50% after three years and 50% after four years
2018	1,783,268	Vest 50% after three years and 50% after four years
2019	1,923,445	Vest 50% after three years and 50% after four years

A summary of the status of Power Financial's Employee Stock Option Plan as at December 31, 2019 and 2018, and changes during the respective years ended is as follows:

	2019		2018	
	Options	Weighted-average exercise price	Options	Weighted-average exercise price
		$		$
Outstanding, beginning of year	11,292,625	32.36	11,291,779	32.59
Granted	1,923,445	32.68	1,809,883	31.78
Exercised	–	–	(225,000)	29.63
Forfeited and expired	(136,182)	26.22	(1,584,037)	33.76
Outstanding, end of year	13,079,888	32.47	11,292,625	32.36
Options exercisable, end of year	6,990,415	32.00	5,708,266	31.22

The following table summarizes information about stock options outstanding at December 31, 2019:

		Options outstanding			Options exercisable	
Range of exercise prices	Expiry date	Options	Weighted-average remaining life	Weighted-average exercise price	Options	Weighted-average exercise price
$			(yrs)	$		$
28.13 – 32.46	2020	698,779	0.6	28.25	698,779	28.25
26.37 – 30.18	2021	777,503	1.6	26.54	777,503	26.54
25.07 – 38.35	2022	750,959	2.6	26.25	750,959	26.25
30.64 – 32.58	2023	756,189	3.6	32.44	756,189	32.44
34.01 – 35.36	2024	1,667,810	4.5	34.10	1,649,979	34.12
33.37 – 38.35	2025	1,641,825	5.3	36.81	1,494,713	37.00
30.27 – 32.32	2026	1,614,144	6.2	31.85	862,293	31.83
32.65 – 35.36	2027	1,468,041	7.2	35.33	–	–
31.78	2028	1,781,193	8.2	31.78	–	–
32.68	2029	1,923,445	9.3	32.68	–	–
		13,079,888	5.8	32.47	6,990,415	32.00

Subsequent event

As a part of the Reorganization (Note 33) completed on February 13, 2020, Power Corporation assumed the Corporation's stock option plan. The 13,079,888 options outstanding at February 13, 2020 under Power Financial's Employee Stock Option Plan were exchanged for options to acquire Subordinate Voting Shares of Power Corporation.

NOTE 19 Share-Based Compensation (continued)

COMPENSATION EXPENSE

During the year ended December 31, 2019, Power Financial granted 1,923,445 options (1,809,883 options in 2018) under its Employee Stock Option Plan. The fair value of these options was estimated using the Black-Scholes option-pricing model with the following weighted-average assumptions:

	2019	2018
Dividend yield	5.3%	4.4%
Expected volatility	15.3%	17.5%
Risk-free interest rate	1.8%	2.1%
Expected life (years)	9.4	9.2
Fair value per stock option ($/option)	1.54	2.86
Weighted-average exercise price ($/option)	32.68	31.78

Expected volatility has been estimated based on the historical volatility of the Corporation's share price over the expected option life.

Lifeco and IGM have also established stock option plans pursuant to which options may be granted to certain officers and employees. In addition, other subsidiaries of the Corporation have established share-based compensation plans. Compensation expense is recorded based on the fair value of the options or the fair value of the equity instruments at the grant date, amortized over the vesting period. Total compensation expense relating to the stock options granted by the Corporation and its subsidiaries amounted to $55 million in 2019 ($47 million in 2018) and is recorded in operating and administrative expenses in the statements of earnings.

PERFORMANCE SHARE UNIT PLAN

Power Financial established a Performance Share Unit (PSU) Plan for selected employees and officers (participants) to assist in retaining and further aligning the interests of participants with those of the shareholders. Under the terms of the Plan, PSUs may be awarded annually and are subject to time and performance vesting conditions. The value of each PSU is based on the share price of the Corporation's common shares. The PSUs are cash settled and vest over a three-year period. Participants can elect at the time of grant to receive a portion of their PSUs in the form of performance deferred share units (PDSUs) which also vest over a three-year period. PDSUs are redeemable when a participant is no longer an employee of the Corporation or any of its affiliates, or in the event of the death of the participant, by a lump-sum cash payment based on the value of the PDSU at that time. Additional PSUs and PDSUs are issued in respect of dividends payable on common shares based on the value of the PSU or PDSU at the dividend payment date. The carrying value of the PSU liability of $24 million ($13 million in 2018) is recorded within other liabilities.

NOTE 19 Share-Based Compensation (continued)

DEFERRED SHARE UNIT PLAN

Power Financial established a Deferred Share Unit Plan for its Directors to promote a greater alignment of interests between Directors and shareholders of the Corporation. Under this Plan, Directors participating in the Plan will receive half of their annual retainer in the form of deferred share units and may elect to receive the remainder of their annual retainer and attendance fees entirely in the form of deferred share units, entirely in cash, or equally in cash and deferred share units. The number of deferred share units granted is determined by dividing the amount of remuneration payable by the five-day-average closing price on the Toronto Stock Exchange of the common shares of the Corporation on the last five days of the fiscal quarter (the value of a deferred share unit). A Director will receive additional deferred share units in respect of dividends payable on the common shares, based on the value of a deferred share unit on the date on which the dividends were paid on the common shares. A deferred share unit is payable, at the time a Director's membership on the Board is terminated (provided the Director is not then a director, officer or employee of an affiliate of the Corporation), or in the event of the death of a Director, by a lump-sum cash payment, based on the value of a deferred share unit at that time. At December 31, 2019, the value of the deferred share units outstanding was $20 million ($17 million in 2018) and is recorded within other liabilities. Alternatively, directors may participate in a Share Purchase Plan for Directors.

EMPLOYEE SHARE PURCHASE PROGRAM

Power Financial established an Employee Share Purchase Program, giving employees the opportunity to subscribe for up to 6% of their gross salary to purchase Subordinate Voting Shares of Power Corporation of Canada on the open market. Power Financial invests, on the employee's behalf, up to an equal amount.

OTHER SHARE-BASED AWARDS OF SUBSIDIARIES

The subsidiaries of the Corporation have also established other share-based awards and performance share unit plans (plans) for their directors, management and employees. Some of these plans are cash settled and included within other liabilities. Total compensation expense related to these subsidiary plans amounted to $95 million in 2019 ($45 million in 2018) and is recorded in operating and administrative expenses on the statements of earnings.

NOTE 20 Non-Controlling Interests

The non-controlling interests of Lifeco and IGM, their subsidiaries and the Corporation's other subsidiaries reflected in the balance sheets are as follows:

	December 31, 2019			December 31, 2018		
	Lifeco	IGM and other	Total	Lifeco	IGM and other	Total
Non-controlling interests, beginning of year						
As previously reported	11,724	1,645	13,369	11,256	1,558	12,814
Change in accounting policies [Note 2]	(32)	(3)	(35)	–	–	–
Restated non-controlling interests, beginning of year	11,692	1,642	13,334	11,256	1,558	12,814
Net earnings attributable to non-controlling interests	827	239	1,066	954	243	1,197
Other comprehensive income (loss) attributable to non-controlling interests	(131)	(33)	(164)	169	5	174
Dividends	(584)	(186)	(770)	(567)	(197)	(764)
Repurchase of common shares and redemption of preferred shares, net of issuance of equity instruments [1]	(295)	(166)	(461)	(30)	9	(21)
Effect of changes in ownership interest and other [1]	(137)	29	(108)	(58)	27	(31)
Non-controlling interests, end of year	11,372	1,525	12,897	11,724	1,645	13,369

[1] Includes the impact of the purchase for cancellation of common shares by Lifeco under its substantial issuer bid.

The carrying value of non-controlling interests consists of the following:

	December 31, 2019			December 31, 2018		
	Lifeco	IGM and other	Total	Lifeco	IGM and other	Total
Common shareholders	5,899	1,525	7,424	6,273	1,495	7,768
Preferred shareholders	2,714	–	2,714	2,714	150	2,864
Participating account surplus	2,759	–	2,759	2,737	–	2,737
	11,372	1,525	12,897	11,724	1,645	13,369

Financial information of Lifeco and IGM as at and for the year ended December 31, 2019 can be obtained from their publicly available financial statements. Summarized financial information for Lifeco and IGM is as follows:

	2019		2018	
	Lifeco	IGM	Lifeco	IGM
Balance sheet				
Assets	451,167	15,391	427,689	15,609
Liabilities	425,624	10,892	400,291	11,007
Equity	25,543	4,499	27,398	4,602
Comprehensive income				
Net earnings	2,507	749	3,075	776
Other comprehensive income (loss)	(520)	(60)	632	25
Cash flows				
Operating activities	6,110	712	6,494	785
Financing activities	(3,981)	(1,069)	(1,267)	(1,132)
Investing activities	(1,539)	427	(4,776)	30

NOTE 21 Capital Management

POWER FINANCIAL

Subsequent to the Reorganization (Note 33), Power Corporation holds 100% of the issued and outstanding common shares of the Corporation. The Corporation's preferred shares and debt securities remain outstanding. As a holding company, Power Financial's objectives in managing its capital are to:

- provide attractive long-term returns to the shareholder of the Corporation;
- provide sufficient financial flexibility to pursue its growth strategy to invest on a timely basis in its operating companies and other investments as opportunities present;
- maintain a capital structure that matches the long-term nature of its investments by maximizing the use of permanent capital; and
- maintain an appropriate credit rating to ensure stable access to the capital markets.

The Corporation manages its capital taking into consideration the risk characteristics and liquidity of its holdings. In order to maintain or adjust its capital structure, the Corporation may adjust the amount of dividends paid to shareholders, return capital to shareholders or issue capital.

The capital structure of the Corporation consists of debentures, perpetual preferred shares, common shareholders' equity and non-controlling interests. The Corporation views perpetual preferred shares as a cost-effective source of permanent capital. The Corporation is a long-term investor and as such holds positions in long-term investments as well as cash and fixed income securities for liquidity purposes.

The Board of Directors of the Corporation is responsible for capital management. Management of the Corporation is responsible for establishing capital management procedures and for implementing and monitoring its capital plans. The Board of Directors of the Corporation reviews and approves capital transactions such as the issuance, redemption and repurchase of common shares, perpetual preferred shares and debentures. The boards of directors of the Corporation's subsidiaries, as well as those of Pargesa and Groupe Bruxelles Lambert, oversee and have the responsibility for their respective company's capital management.

On April 17, 2019, the Corporation completed the PFC SIB and repurchased for cancellation $1.65 billion of its common shares. The PFC SIB facilitated the repurchase of common shares at attractive market valuations and returned capital to shareholders while maintaining Power Financial's strong capital position to fund future growth opportunities.

The Corporation itself is not subject to externally imposed regulatory capital requirements. However, Lifeco and certain of its main subsidiaries, IGM's subsidiaries and certain of the Corporation's other subsidiaries are subject to regulatory capital requirements and they manage their capital as described below.

LIFECO

Lifeco manages its capital on both a consolidated basis as well as at the individual operating subsidiary level. The primary objectives of Lifeco's capital management strategy are:

- to maintain the capitalization of its regulated operating subsidiaries at a level that will exceed the relevant minimum regulatory capital requirements in the jurisdictions in which they operate;
- to maintain strong credit and financial strength ratings of Lifeco ensuring stable access to capital markets; and
- to provide an efficient capital structure to maximize shareholder value in the context of Lifeco's operational risks and strategic plans.

Lifeco has established policies and procedures designed to identify, measure and report all material risks. Management of Lifeco is responsible for establishing capital management procedures for implementing and monitoring the capital plan.

NOTE 21 Capital Management (continued)

The target level of capitalization for Lifeco and its subsidiaries is assessed by considering various factors such as the probability of falling below the minimum regulatory capital requirements in the relevant operating jurisdiction, the views expressed by various credit rating agencies that provide financial strength and other ratings to Lifeco, and the desire to hold sufficient capital to be able to honour all policyholder and other obligations of Lifeco with a high degree of confidence.

Lifeco's subsidiaries Great-West Life, Great-West Life & Annuity and entities based in Europe are subject to minimum regulatory capital requirements.

- In Canada, the Office of the Superintendent of Financial Institutions (OSFI) has established a regulatory capital adequacy measurement for life insurance companies incorporated under the *Insurance Companies Act* (Canada) and their subsidiaries known as the Life Insurance Capital Adequacy Test (LICAT). The LICAT ratio compares the regulatory capital resources of a company to its Base Solvency Buffer or required capital. The Base Solvency Buffer, defined by OSFI, is the aggregate of all defined capital requirements multiplied by a scalar of 1.05. The total capital resources are provided by the sum of available capital, surplus allowance and eligible deposits. OSFI has established a supervisory target total ratio of 100%, and a supervisory minimum total ratio of 90%. Great-West Life's consolidated LICAT ratio at December 31, 2019 was 135% (140% at December 31, 2018).
- For entities based in Europe, the local solvency capital regime is the Solvency II basis. At December 31, 2019 and 2018, all Lifeco's European regulated entities met the capital and solvency requirements as prescribed under Solvency II.
- Great-West Life & Annuity is subject to the risk-based capital regulatory regime in the U.S.
- Other foreign operations and foreign subsidiaries of Lifeco are required to comply with local capital or solvency requirements in their respective jurisdictions. At December 31, 2019 and 2018, Lifeco maintained capital levels above the minimum local regulatory requirements in each of its other foreign operations.

IGM FINANCIAL

IGM's capital management objective is to maximize shareholder returns while ensuring that IGM is capitalized in a manner which appropriately supports regulatory capital requirements, working capital needs and business expansion. IGM's capital management practices are focused on preserving the quality of its financial position by maintaining a solid capital base and a strong balance sheet. IGM regularly assesses its capital management practices in response to changing economic conditions.

IGM's capital is primarily used in its ongoing business operations to support working capital requirements, its long-term investments, business expansion and other strategic objectives.

The IGM subsidiaries that are subject to regulatory capital requirements include investment dealers, mutual fund dealers, exempt market dealers, portfolio managers, investment fund managers and a trust company. These IGM subsidiaries are required to maintain minimum levels of capital based on either working capital, liquidity or shareholders' equity. At December 31, 2019 and 2018, IGM subsidiaries have complied with all regulatory capital requirements.

OTHER SUBSIDIARIES

Certain other subsidiaries are subject to regulatory capital requirements, including a mutual fund dealer, portfolio managers, and an order-execution-only broker. These other subsidiaries are required to maintain levels of capital based on their working capital, liquidity or shareholders' equity. At December 31, 2019 and 2018, these other subsidiaries have complied with all regulatory capital requirements.

NOTE 22 Risk Management

The Corporation and its subsidiaries have established policies, guidelines and procedures designed to identify, measure, monitor and mitigate risks associated with financial instruments. The key risks related to financial instruments are liquidity risk, credit risk and market risk.

- Liquidity risk is the risk that the Corporation and its subsidiaries would not be able to meet all cash outflow obligations as they come due or be able to, in a timely manner, raise capital or monetize assets at normal market conditions.
- Credit risk is the potential for financial loss to the Corporation and its subsidiaries if a counterparty in a transaction fails to meet its payment obligations. Credit risk can be related to the default of a single debt issuer, the variation of credit spreads on tradable fixed income securities and also to counterparty risk relating to derivative products.
- Market risk is the risk that the market value or future cash flows of a financial instrument will fluctuate as a result of changes in market factors. Market factors include three types of risks: foreign exchange risk, interest rate risk and equity risk.
  - Foreign exchange risk relates to the Corporation, its subsidiaries and its jointly controlled corporations and associates operating in different currencies and converting non-Canadian investments and earnings at different points in time at different foreign exchange levels when adverse changes in foreign currency exchange rates occur.
  - Interest rate risk is the risk that the fair value of a financial instrument will fluctuate following changes in the interest rates.
  - Equity risk is the potential loss associated with the sensitivity of the market price of a financial instrument arising from volatility in equity markets.

This note to the financial statements includes estimates of sensitivities and risk exposure measures for certain risks, such as the sensitivity due to specific changes in interest rate levels projected and market prices as at the valuation date. Actual results can differ significantly from these estimates for a variety of reasons, including:

- assessment of the circumstances that led to the scenario may lead to changes in (re)investment approaches and interest rate scenarios considered;
- changes in actuarial, investment return and future investment activity assumptions;
- actual experience differing from the assumptions;
- changes in business mix, effective tax rates and other market factors;
- interactions among these factors and assumptions when more than one changes; and
- the general limitations of internal models.

For these reasons, the sensitivities should only be viewed as directional estimates of the underlying sensitivities for the respective factors based on the assumptions outlined above. Given the nature of these calculations, the Corporation cannot provide assurance that the actual impact on net earnings will be as indicated.

POWER FINANCIAL AND OTHER SUBSIDIARIES

Liquidity risk, credit risk and market risk of Power Financial and other subsidiaries are discussed in the first section of this note. In subsequent sections, risks related to Lifeco and IGM are discussed.

Liquidity risk

Power Financial is a holding company. As such, corporate cash flows are principally derived from dividends received from its subsidiaries and a jointly controlled corporation, and income from investments, less operating expenses, financing charges, income taxes and payment of dividends to its common and preferred shareholders. The ability of Lifeco, IGM and Parjointco, which are also holding companies, to meet their obligations and pay dividends is dependent upon receipt of dividends from their own subsidiaries.

NOTE 22 Risk Management (continued)

The Corporation regularly reviews its liquidity requirements and seeks to maintain a sufficient level of liquidity to meet its operating expenses, financing charges and payment of preferred share dividends for a reasonable period of time, as defined in its policies. The ability of Power Financial and other subsidiaries to arrange additional financing in the future will depend in part upon prevailing market conditions as well as the business performance and risk profile of Power Financial and its subsidiaries.

Other subsidiaries have uncommitted lines of credit of $65 million with Canadian banks ($57 million was undrawn at December 31, 2019).

Principal repayments on debentures (other than those of Lifeco and IGM discussed below) of $250 million due in 2023 represent the only significant contractual liquidity requirement of Power Financial.

Power Financial and other subsidiaries' management of liquidity risk has not changed materially since December 31, 2018.

Credit risk

Fixed income securities and derivatives are subject to credit risk. The Corporation mitigates credit risk on its fixed income securities by adhering to an investment policy that establishes guidelines which provide exposure limits by defining admissible securities, minimum rating and concentration limits.

Fixed income securities, which are included in investments and in cash and cash equivalents, consist primarily of bonds, bankers' acceptances and highly liquid temporary deposits with Canadian chartered banks and banks in jurisdictions where Power Financial operates as well as bonds and short-term securities of, or guaranteed by, the Canadian or U.S. governments. The Corporation regularly reviews the credit ratings of its counterparties. The maximum exposure to credit risk on these financial instruments is their carrying value.

Derivatives can also be used to mitigate foreign exchange exposures. The Corporation regularly reviews the credit ratings of derivative financial instrument counterparties. Derivative contracts are over-the-counter with counterparties that are highly rated financial institutions.

Other subsidiaries' financial instruments are subject to credit risk. Other subsidiaries regularly review the credit ratings of their counterparties. The maximum exposure to credit risk on these financial instruments is their carrying value.

Power Financial and other subsidiaries' exposure to and management of credit risk related to cash and cash equivalents, fixed income securities and derivatives have not changed materially since December 31, 2018.

Market risk

Power Financial and other subsidiaries' financial instruments are comprised of cash and cash equivalents, fixed income securities, derivatives and debentures and other debt instruments.

a) Foreign exchange risk

In its ongoing operations, Power Financial and other subsidiaries may hold cash balances denominated in foreign currencies and thus be exposed to fluctuations in exchange rates. In order to protect against such fluctuations, Power Financial may from time to time enter into currency-hedging transactions with highly rated financial institutions. As at December 31, 2019, approximately 2% (approximately 3% in 2018) of Power Financial and other subsidiaries' cash and cash equivalents and fixed income securities were denominated in U.S. dollars.

Power Financial is exposed through Parjointco to foreign exchange risk as a result of Parjointco's investment in Pargesa, a company whose functional currency is the Swiss franc. Pargesa itself is exposed to foreign exchange risk through its subsidiary whose functional currency is the euro. Foreign currency translation gains and losses from Pargesa are recorded in other comprehensive income.

NOTE 22 Risk Management (continued)

b) Interest rate risk

Power Financial and other subsidiaries' financial instruments do not have significant exposure to interest rate risk.

c) Equity risk

Power Financial and other subsidiaries' financial instruments do not have significant exposure to equity risk.

Pargesa indirectly holds substantial investments classified as available for sale. Unrealized gains and losses on these investments are recorded in other comprehensive income until realized. These investments are reviewed periodically to determine whether there is objective evidence of an impairment in value.

LIFECO

The risk committee of the board of directors of Lifeco is responsible for the oversight of Lifeco's key risks.

Liquidity risk

Lifeco has the following policies and procedures in place to manage liquidity risk:

- Lifeco closely manages operating liquidity through cash flow matching of assets and liabilities and forecasting earned and required yields, to ensure consistency between policyholder requirements and the yield of assets. Approximately 57% (approximately 53% in 2018) of insurance and investment contract liabilities are non-cashable prior to maturity or claim, with a further approximately 14% (13% in 2018) of insurance and investment contract liabilities subject to fair value adjustments under certain conditions.
- Management of Lifeco closely monitors the solvency and capital positions of its principal subsidiaries opposite liquidity requirements at the holding company. Additional liquidity is available through established lines of credit or via capital market transactions. Lifeco maintains $350 million of liquidity at its level through committed lines of credit with Canadian chartered banks. As well, Lifeco maintains a $150 million liquidity facility at Great-West Life, a US$500 million revolving credit agreement with a syndicate of banks for use by Putnam, and a US$50 million line of credit at Great-West Life & Annuity.

In the normal course of business, Lifeco enters into contracts that give rise to commitments of future minimum payments that impact short-term and long-term liquidity. The following table summarizes the principal repayment schedule of certain of Lifeco's financial liabilities.

	Payments due by period						
December 31, 2019	1 year	2 years	3 years	4 years	5 years	After 5 years	Total
Debentures and other debt instruments	929	–	–	730	–	4,224	5,883
Capital trust debentures [1]	–	–	–	–	–	150	150
Purchase obligations	125	57	29	13	8	84	316
Future lease payments	83	78	66	56	53	417	753
Pension contributions	280	–	–	–	–	–	280
	1,417	135	95	799	61	4,875	7,382

[1] Payments due have not been reduced to reflect that Lifeco held capital trust securities of $37 million principal amount ($53 million carrying value).

NOTE 22 Risk Management (continued)

Credit risk

Lifeco has the following policies and procedures in place to manage credit risk:

- Investment policies aim to minimize undue concentration within issuers, connected companies, industries or individual geographies.
- Investment limits specify minimum and maximum limits for each asset class.
- Identification of credit risk through an internal credit risk rating system which includes a detailed assessment of an obligor's creditworthiness. Internal credit risk ratings cannot be higher than the highest rating provided by certain independent ratings companies.
- Portfolios are monitored continuously, and reviewed regularly with the risk committee and the investment committee of the board of directors of Lifeco.
- Credit risk associated with derivative instruments is evaluated quarterly based on conditions that existed at the balance sheet date, using practices that are at least as conservative as those recommended by regulators. Lifeco manages derivative credit risk by including derivative exposure to aggregate credit exposures measured against rating-based obligor limits and through collateral arrangements where possible.
- Counterparties providing reinsurance to Lifeco are reviewed for financial soundness as part of an ongoing monitoring process. The minimum financial strength of reinsurers is outlined in Lifeco's Reinsurance Risk Management Policy. Lifeco seeks to minimize reinsurance credit risk by setting rating-based limits on net ceded exposure by counterparty as well as by seeking protection in the form of collateral or funds-withheld arrangements where possible.
- Investment guidelines also specify collateral requirements.

a) Maximum exposure to credit risk

The following table summarizes Lifeco's maximum exposure to credit risk related to financial instruments. The maximum credit exposure is the carrying value of the asset net of any allowances for losses.

	December 31, 2019	December 31, 2018
Cash and cash equivalents	4,628	4,168
Bonds		
Fair value through profit or loss	85,946	91,901
Available for sale	11,710	13,239
Loans and receivables	17,372	19,722
Mortgage loans	24,268	25,014
Loans to policyholders	8,601	8,929
Funds held by ceding insurers [1]	8,714	9,251
Reinsurance assets	20,707	6,126
Interest due and accrued	1,196	1,388
Accounts receivable	3,256	2,502
Premiums in course of collection	1,429	1,312
Trading account assets	1,092	843
Finance leases receivable	405	410
Other financial assets [2]	444	672
Derivative assets	451	417
Total balance sheet maximum credit exposure	190,219	185,894

[1] Includes $6,741 million as at December 31, 2019 ($7,246 million as at December 31, 2018) of funds held by ceding insurers where Lifeco retains the credit risk of the assets supporting the liabilities ceded (see Note 7).

[2] Includes items such as income taxes receivable and miscellaneous other assets of Lifeco.

NOTE 22 Risk Management (continued)

Credit risk is also mitigated by entering into collateral agreements. The amount and type of collateral required depends on an assessment of the credit risk of the counterparty. Guidelines have been implemented regarding the acceptability of types of collateral and the valuation parameters. Management of Lifeco monitors the value of the collateral, requests additional collateral when needed and performs an impairment valuation when applicable. Lifeco has $156 million of collateral received from counterparties as at December 31, 2019 ($109 million as at December 31, 2018) relating to derivative assets.

b) Concentrations of credit risk

Concentrations of credit risk arise from exposures to a single obligor, a group of related obligors or groups of obligors that have similar credit risk characteristics and operate in the same geographic region or in similar industries. The characteristics of such obligors are similar in that changes in economic or political environments may impact their ability to meet obligations as they come due.

The following table provides details of the carrying value of bonds of Lifeco by issuer, industry sector and geographic distribution:

				December 31, 2019
	Canada	United States	Europe	Total
Bonds issued or guaranteed by:				
Treasuries	479	72	11,186	11,737
Government-related	19,307	1,795	8,814	29,916
Agency securitized	110	1,111	10	1,231
Non-agency securitized	2,159	4,664	1,738	8,561
Financials	4,119	3,011	6,346	13,476
Communications	888	617	1,120	2,625
Consumer products	3,761	2,738	3,504	10,003
Energy	2,173	1,071	906	4,150
Industrials	1,764	2,057	1,735	5,556
Technology	552	727	567	1,846
Transportation	2,897	546	1,197	4,640
Utilities	9,145	2,377	4,953	16,475
Short-term bonds	2,680	720	1,412	4,812
	50,034	21,506	43,488	115,028

				December 31, 2018
	Canada	United States	Europe	Total
Bonds issued or guaranteed by:				
Treasuries	654	103	12,492	13,249
Government-related	17,947	3,605	8,499	30,051
Agency securitized	80	1,531	14	1,625
Non-agency securitized	2,191	5,701	1,830	9,722
Financials	3,986	4,666	6,068	14,720
Communications	788	1,357	1,211	3,356
Consumer products	3,660	4,073	3,412	11,145
Energy	1,805	2,241	868	4,914
Industrials	1,606	3,932	1,757	7,295
Technology	611	1,105	470	2,186
Transportation	2,622	968	1,131	4,721
Utilities	8,525	4,201	4,686	17,412
Short-term bonds	2,790	74	1,602	4,466
	47,265	33,557	44,040	124,862

NOTE 22 Risk Management (continued)

The following table provides details of the carrying value of mortgage loans of Lifeco by geographic location:

December 31, 2019	Single-family residential	Multi-family residential	Equity-release	Commercial	Total
Canada	2,069	4,496	374	7,871	14,810
United States	–	1,798	–	2,198	3,996
Europe	–	710	940	3,812	5,462
	2,069	7,004	1,314	13,881	24,268

December 31, 2018	Single-family residential	Multi-family residential	Equity-release	Commercial	Total
Canada	2,104	4,686	26	7,223	14,039
United States	–	2,434	–	4,006	6,440
Europe	–	497	787	3,251	4,535
	2,104	7,617	813	14,480	25,014

c) Asset quality

Bond Portfolio Quality	December 31, 2019	December 31, 2018
AAA	22,083	23,558
AA	33,272	33,793
A	37,233	41,008
BBB	21,922	25,553
BB and lower	518	950
Total bonds	115,028	124,862

Derivative Portfolio Quality	December 31, 2019	December 31, 2018
Over-the-counter contracts (counterparty credit ratings):		
AA	271	252
A	146	110
BBB	34	47
Exchange-traded	–	8
Total	451	417

d) Loans past due, but not impaired

Loans that are past due but not considered impaired are loans for which scheduled payments have not been received, but management of Lifeco has reasonable assurance of collection of the full amount of principal and interest due. The following table provides carrying values of the loans past due, but not impaired:

	December 31, 2019	December 31, 2018
Less than 30 days	28	1
30–90 days	1	2
Greater than 90 days	4	–
Total	33	3

NOTE 22 Risk Management (continued)

e) Future asset credit losses

The following outlines the future asset credit losses provided for in insurance contract liabilities. These amounts are in addition to the allowance for asset losses included with assets:

	December 31, 2019	December 31, 2018
Participating	1,175	885
Non-participating	1,400	1,710
	2,575	2,595

Market risk

a) Foreign exchange risk

If the assets backing insurance and investment contract liabilities are not matched by currency, changes in foreign exchange rates can expose Lifeco to the risk of foreign exchange losses not offset by liability decreases. Lifeco has net investments in foreign operations. Lifeco's debt obligations are denominated in Canadian dollars, euros and U.S. dollars. In accordance with IFRS, foreign currency translation gains and losses from net investments in foreign operations, net of related hedging activities and tax effects, are recorded in other comprehensive income. Strengthening or weakening of the Canadian dollar spot rate compared to the U.S. dollar, British pound and euro spot rates impacts Lifeco's total equity. Correspondingly, Lifeco's book value per share and capital ratios monitored by rating agencies are also impacted.

The following policies and procedures are in place to mitigate Lifeco's exposure to foreign exchange risk:

- Lifeco uses financial measures such as constant currency calculations to monitor the effect of currency translation fluctuations.
- Investments are normally made in the same currency as the liabilities supported by those investments. Segmented investment guidelines include maximum tolerances for unhedged currency mismatch exposures.
- For assets backing liabilities not matched by currency, Lifeco normally converts the assets back to the currency of the liability using foreign exchange contracts.
- A 10% weakening of the Canadian dollar against foreign currencies would be expected to increase non-participating insurance and investment contract liabilities and their supporting assets by approximately the same amount, resulting in an immaterial change to net earnings.
- A 10% strengthening of the Canadian dollar against foreign currencies would be expected to decrease non-participating insurance and investment contract liabilities and their supporting assets by approximately the same amount, resulting in an immaterial change to net earnings.

b) Interest rate risk

The following policies and procedures are in place to mitigate Lifeco's exposure to interest rate risk:

- Lifeco uses a formal process for managing the matching of assets and liabilities. This involves grouping general fund assets and liabilities into segments. Assets in each segment are managed in relation to the liabilities in the segment.
- Interest rate risk is managed by investing in assets that are suitable for the products sold.
- Where these products have benefit or expense payments that are dependent on inflation (inflation-indexed annuities, pensions and disability claims), Lifeco generally invests in real return instruments to hedge its real dollar liability cash flows. Some protection against changes in the inflation index is achieved as any related change in the fair value of the assets will be largely offset by a similar change in the fair value of the liabilities.

NOTE 22 Risk Management (continued)

- For products with fixed and highly predictable benefit payments, investments are made in fixed income assets or real estate whose cash flows closely match the liability product cash flows. Where assets are not available to match certain period cash flows, such as long-tail cash flows, a portion of these are invested in equities and the rest are duration matched. Hedging instruments are employed where necessary when there is a lack of suitable permanent investments to minimize loss exposure to interest rate changes. To the extent these cash flows are matched, protection against interest rate change is achieved and any change in the fair value of the assets will be offset by a similar change in the fair value of the liabilities.
- For products with less predictable timing of benefit payments, investments are made in fixed income assets with cash flows of a shorter duration than the anticipated timing of benefit payments or equities, as described below.
- The risks associated with the mismatch in portfolio duration and cash flow, asset prepayment exposure and the pace of asset acquisition are quantified and reviewed regularly.

Projected cash flows from the current assets and liabilities are used in the CALM to determine insurance contract liabilities. Valuation assumptions have been made regarding rates of returns on supporting assets, fixed income, equity and inflation. The valuation assumptions use best estimates of future reinvestment rates and inflation assumptions with an assumed correlation together with margins for adverse deviation set in accordance with professional standards. These margins are necessary to provide for possibilities of misestimation and future deterioration in the best estimate assumptions and provide reasonable assurance that insurance contract liabilities cover a range of possible outcomes. Margins are reviewed periodically for continued appropriateness.

Projected cash flows from fixed income assets used in actuarial calculations are reduced to provide for potential asset default losses. The net effective yield rate reduction averaged 0.10% (0.10% in 2018). The calculation for future credit losses on assets is based on the credit quality of the underlying asset portfolio.

Testing under a number of interest rate scenarios (including increasing, decreasing and fluctuating rates) is done to assess reinvestment risk. The total provision for interest rates is sufficient to cover a broader or more severe set of risks than the minimum arising from the current Canadian Institute of Actuaries-prescribed scenarios.

The range of interest rates covered by these provisions is set in consideration of long-term historical results and is monitored quarterly with a full review annually. An immediate 1% parallel shift in the yield curve would not have a material impact on Lifeco's view of the range of interest rates to be covered by the provisions. If sustained however, the parallel shift could impact Lifeco's range of scenarios covered.

The total provision for interest rates also considers the impact of the Canadian Institute of Actuaries-prescribed scenarios:

- At December 31, 2019 and 2018, the effect of an immediate 1% parallel increase in the yield curve on the prescribed scenarios results in interest rate changes to assets and liabilities that will offset each other with no impact to net earnings.
- At December 31, 2019 and 2018, the effect of an immediate 1% parallel decrease in the yield curve on the prescribed scenarios results in interest rate changes to assets and liabilities that will offset each other with no impact to net earnings.

NOTE 22 Risk Management (continued)

Another way of measuring the interest rate risk associated with this assumption is to determine the effect on the insurance and investment contract liabilities impacting the net earnings of a 1% change in Lifeco's view of the range of interest rates to be covered by these provisions. The following provides information on the effect of an immediate 1% increase or 1% decrease in the interest rates at both the low and high end of the range of interest rates recognized in the provisions:

	December 31, 2019		December 31, 2018	
	1% increase	1% decrease	1% increase	1% decrease
Change in interest rates				
Increase (decrease) in non-participating insurance and investment contract liabilities	(230)	811	(165)	639
Increase (decrease) in net earnings	175	(619)	115	(465)

c) *Equity risk*

Lifeco has investment policy guidelines in place that provide for prudent investment in equity markets with clearly defined limits to mitigate price risk.

The risks associated with segregated fund guarantees have been mitigated through a hedging program for lifetime Guaranteed Minimum Withdrawal Benefit guarantees using equity futures, currency forwards, and interest rate derivatives. For policies with segregated fund guarantees, Lifeco generally determines insurance contract liabilities at a conditional tail expectation of 75 (CTE75) level. In other words, Lifeco determines insurance contract liabilities at a level that covers the average loss in the worst 25% part of the loss distribution.

Some insurance and investment contract liabilities are supported by investment properties, common shares and private equities, for example, segregated fund products and products with long-tail cash flows. Generally these liabilities will fluctuate in line with equity values. However, there may be additional market and liability impacts as a result of changes in the equity values that will cause the liabilities to fluctuate differently than the equity values. The following provides information on the expected impacts of a 10% increase or 10% decrease in equity values:

	December 31, 2019		December 31, 2018	
	10% increase	10% decrease	10% increase	10% decrease
Change in equity values				
Increase (decrease) in non-participating insurance and investment contract liabilities	(107)	162	(87)	338
Increase (decrease) in net earnings	87	(129)	73	(266)

The best estimate return assumptions for equities are primarily based on long-term historical averages. Changes in the current market could result in changes to these assumptions and will impact both asset and liability cash flows. The following provides information on the expected impacts of a 1% increase or 1% decrease in the best estimate assumptions:

	December 31, 2019		December 31, 2018	
	1% increase	1% decrease	1% increase	1% decrease
Change in best estimate return assumptions for equities				
Increase (decrease) in non-participating insurance contract liabilities	(645)	752	(591)	680
Increase (decrease) in net earnings	509	(585)	476	(539)

NOTE 22 Risk Management (continued)

IGM FINANCIAL

The board of directors of IGM provides oversight and carries out its risk management mandate through various committees.

Liquidity risk

IGM's liquidity management practices include:

- Maintaining liquid assets and lines of credit to satisfy near-term liquidity needs.
- Ensuring effective controls over liquidity management processes.
- Performing regular cash forecasts and stress testing.
- Regular assessment of capital market conditions and IGM's ability to access bank and capital market funding.
- Ongoing efforts to diversify and expand long-term mortgage funding sources.
- Oversight of liquidity by management and by committees of the board of directors of IGM.

A key liquidity requirement for IGM is the funding of consultant network compensation paid for the distribution of financial products and services. This compensation continues to be paid from operating cash flows.

IGM also maintains sufficient liquidity to fund and temporarily hold mortgages pending sale or securitization to long-term funding sources and to manage any derivative collateral requirements related to the mortgage banking operation. Through its mortgage banking operations, residential mortgages are sold to third parties including certain mutual funds, institutional investors through private placements, Canadian bank-sponsored securitization trusts, and by issuance and sale of National Housing Act Mortgage-Backed Securities (NHA MBS), including sales to Canada Housing Trust under the Canada Mortgage Bond Program (CMB Program).

Certain subsidiaries of IGM are approved issuers of NHA MBS and are approved sellers into the CMB Program. Capacity for sales under the CMB Program consists of participation in new CMB issues and reinvestment of principal repayments held in principal reinvestment accounts.

IGM maintains committed capacity within certain Canadian bank-sponsored securitization trusts.

IGM's contractual maturities of certain liabilities were as follows:

	Payments due by period				
December 31, 2019	Demand	Less than 1 year	1–5 years	After 5 years	Total
Derivative financial instruments	–	7	10	–	17
Deposits and certificates	573	6	4	1	584
Obligations to securitization entities	–	1,474	5,431	9	6,914
Future lease payments	–	26	54	24	104
Debentures	–	–	–	2,100	2,100
Pension contributions	–	26	–	–	26
Total contractual maturities	573	1,539	5,499	2,134	9,745

NOTE 22 Risk Management (continued)

In addition to IGM's current balance of cash and cash equivalents, liquidity is available through IGM's lines of credit. IGM's lines of credit with various Schedule I Canadian chartered banks totalled $825 million as at December 31, 2019, unchanged from December 31, 2018. The lines of credit as at December 31, 2019 consisted of committed lines of $650 million and uncommitted lines of $175 million. IGM has accessed its uncommitted lines of credit in the past; however, any advances made by the banks under the uncommitted lines are at the banks' sole discretion. As at December 31, 2019 and 2018, IGM was not utilizing its committed lines of credit or its uncommitted lines of credit.

IGM's liquidity position and its management of liquidity risk have not changed materially since December 31, 2018.

Credit risk

IGM's cash and cash equivalents, other investment holdings, mortgage portfolios and derivatives are subject to credit risk. IGM monitors its credit risk management practices on an ongoing basis to evaluate their effectiveness.

At December 31, 2019, IGM's cash and cash equivalents of $720 million ($650 million in 2018) consisted of cash balances of $68 million ($82 million in 2018) on deposit with Canadian chartered banks and cash equivalents of $652 million ($568 million in 2018). IGM manages credit risk related to cash and cash equivalents by adhering to its investment policy that outlines credit risk parameters and concentration limits. IGM regularly reviews the credit ratings of its counterparties. The maximum exposure to credit risk on these financial instruments is their carrying value.

As at December 31, 2019, residential mortgages, recorded on IGM's balance sheet, of $7.2 billion ($7.7 billion in 2018) consisted of $6.8 billion sold to securitization programs ($7.3 billion in 2018), $345 million held pending sale or securitization ($364 million in 2018) and $24 million related to IGM's intermediary operations ($26 million in 2018).

IGM manages credit risk related to residential mortgages through:

- adhering to its lending policy and underwriting standards;
- its loan servicing capabilities;
- use of client-insured mortgage default insurance and mortgage portfolio default insurance held by IGM; and
- its practice of originating its mortgages exclusively through its own network of Mortgage Planning Specialists and IG Wealth Management Consultants as part of a client's IG Living Plan™.

In certain instances, credit risk is also limited by the terms and nature of securitization transactions as described below:

- Under the NHA MBS program totalling $3.9 billion ($4.2 billion in 2018), IGM is obligated to make timely payment of principal and coupons irrespective of whether such payments were received from the mortgage borrower. However, as required by the NHA MBS program, 100% of the loans are insured by an approved insurer.
- Credit risk for mortgages securitized by transfer to bank-sponsored securitization trusts totalling $2.9 billion ($3.1 billion in 2018) is limited to amounts held in cash reserve accounts and future net interest income, the fair values of which were $72 million ($74 million in 2018) and $38 million ($36 million in 2018), respectively, at December 31, 2019. Cash reserve accounts are reflected on the balance sheets, whereas rights to future net interest income are not reflected on the balance sheets and will be recorded over the life of the mortgages. This risk is further mitigated by insurance with 4.6% of mortgages held in ABCP trusts insured at December 31, 2019 (8.3% in 2018).

NOTE 22 Risk Management (continued)

At December 31, 2019, residential mortgages recorded on the balance sheet were 59.1% insured (61.5% in 2018). At December 31, 2019, impaired mortgages on these portfolios were $2 million ($3 million in 2018). Uninsured non-performing mortgages over 90 days on these portfolios were $2 million at December 31, 2019 ($2 million in 2018).

IGM also retains certain elements of credit risk on mortgage loans sold to the Investors Mortgage and Short Term Income Fund and to the Investors Canadian Corporate Bond Fund through an agreement to repurchase mortgages in certain circumstances benefiting the funds. These loans are not recorded on IGM's balance sheet as IGM has transferred substantially all of the risks and rewards of ownership associated with these loans.

IGM regularly reviews the credit quality of the mortgages and the adequacy of the allowance for credit losses.

IGM's allowance for credit losses was $1 million at December 31, 2019 ($1 million in 2018), and is considered adequate by IGM's management to absorb all credit-related losses in the mortgage portfolios based on: i) historical credit performance experience and recent trends, ii) current portfolio credit metrics and other relevant characteristics, and iii) regular stress testing of losses under adverse real estate market conditions.

IGM's exposure to and management of credit risk related to cash and cash equivalents, fixed income securities and mortgage portfolios have not changed materially since December 31, 2018.

IGM is exposed to credit risk through the derivative contracts it utilizes to hedge interest rate risk, to facilitate securitization transactions and to hedge market risk related to certain share-based compensation arrangements. These derivatives are discussed more fully under the market risk section below.

To the extent that the fair value of the derivatives is in a gain position, IGM is exposed to the credit risk that its counterparties fail to fulfill their obligations under these arrangements.

IGM's derivative activities are managed in accordance with its investment policy, which includes counterparty limits and other parameters to manage counterparty risk. Counterparties are all Canadian Schedule I chartered banks and, as a result, management of IGM has determined that its overall credit risk related to derivatives was not significant at December 31, 2019. Management of credit risk related to derivatives has not changed materially since December 31, 2018.

Market risk

a) Foreign exchange risk

IGM is exposed to foreign exchange risk on its investments in China AMC and Personal Capital. Changes to the carrying value due to changes in foreign exchange rates on both of these investments are recognized in other comprehensive income. A 5% increase (decrease) in Canadian currency relative to foreign currencies would decrease (increase) the aggregate carrying value of foreign investment by approximately $41 million ($45 million in 2018).

IGM's proportionate share of China AMC's and Personal Capital's earnings (losses), recorded in share of earnings (losses) of investments in jointly controlled corporations and associates in the statement of earnings, is also affected by changes in foreign exchange rates. A 5% increase (decrease) in Canadian currency relative to foreign currencies would decrease (increase) the proportionate share of China AMC's and Personal Capital's earnings by approximately $1 million ($1 million in 2018).

NOTE 22 Risk Management (continued)

b) Interest rate risk

IGM is exposed to interest rate risk on its loan portfolio and on certain of the derivative financial instruments used in IGM's mortgage banking operations.

IGM manages interest rate risk associated with its mortgage banking operations by entering into interest rate swaps with Canadian Schedule I chartered banks as follows:

- IGM has in certain instances funded floating rate mortgages with fixed rate Canada Mortgage Bonds as part of the securitization transactions under the CMB Program. As previously discussed, as part of the CMB Program, IGM is party to a swap whereby it is entitled to receive investment returns on reinvested mortgage principal and is obligated to pay Canada Mortgage Bond coupons. This swap had a negative fair value of $1 million (positive $5 million in 2018) and an outstanding notional value of $0.8 billion at December 31, 2019 ($0.9 billion in 2018). IGM enters into interest rate swaps with Canadian Schedule I chartered banks to hedge the risk that the interest rates earned on floating rate mortgages and reinvestment returns decline. The negative fair value of these swaps totalled $5 million ($11 million in 2018), on an outstanding notional amount of $1.6 billion at December 31, 2019 ($1.7 billion in 2018). The negative net fair value of these swaps recorded on the balance sheet was $6 million at December 31, 2019 ($6 million in 2018) and has an outstanding notional amount of $2.4 billion at December 31, 2019 ($2.6 billion in 2018).
- IGM is exposed to the impact that changes in interest rates may have on the value of mortgages committed to or held pending sale or securitization to long-term funding sources. IGM enters into interest rate swaps to hedge the interest rate risk related to funding costs for mortgages held by IGM pending sale or securitization. The fair value of these swaps was $1 million (negative $2 million in 2018) on an outstanding notional amount of $180 million at December 31, 2019 ($250 million in 2018).

As at December 31, 2019, the impact to net earnings of a 100-basis-point increase in interest rates would have been a decrease of approximately $2 million (decrease of $1 million in 2018). IGM's exposure to and management of interest rate risk have not changed materially since December 31, 2018.

c) Equity risk

IGM is exposed to equity risk on its equity investments which are classified as either available for sale or fair value through profit or loss.

IGM sponsors a number of deferred compensation arrangements for employees where payments to participants are deferred and linked to the performance of the common shares of IGM Financial Inc. IGM hedges its exposure to this risk through the use of forward agreements and total return swaps.

Risks related to assets under management

Risks related to the performance of the equity markets, changes in interest rates and changes in foreign currencies relative to the Canadian dollar can have a significant impact on the level and mix of assets under management. These changes in assets under management directly impact earnings of IGM.

NOTE 23 Operating and Administrative Expenses

	Years ended December 31, 2019 [1]	2018
Salaries and other employee benefits	4,118	3,883
General and administrative expenses [2]	2,058	2,149
Amortization, depreciation and impairment	500	380
Premium taxes	506	495
Restructuring and other	55	90
	7,237	6,997

[1] Includes operating and administrative expenses recognized upon the completion of the reinsurance transaction with Protective Life (Note 3).

[2] Expenses related to short-term leases of $10 million and low-value leases of $3 million are included within general and administrative expenses.

RESTRUCTURING AND OTHER

Lifeco

In 2019, Putnam recorded a restructuring provision of $52 million ($36 million after tax). This restructuring is in respect of expense reductions and a realignment of its resources to best position itself for current and future opportunities. The expense reductions will be achieved through a reduction in staff, consolidation of certain mutual funds, digital technology modernization and facilities downsizing. Lifeco expects to pay out a significant portion of these remaining amounts during 2020.

In 2018, Lifeco recorded a restructuring provision of $67 million pre tax ($56 million after tax) in relation to its United Kingdom Business Transformation. This restructuring is in respect to activities aimed at achieving planned expense reductions and an organizational realignment. The expense reductions will be achieved through system exit costs, reduction in staff and other costs as a result of the integration of Retirement Advantage into Canada Life along with the sale of a heritage block of individual policies to Scottish Friendly.

IGM Financial

In 2018, IGM recorded a restructuring provision of $23 million pre tax ($17 million after tax) related to the re-engineering of its North American equity offerings and associated personnel changes, as well as other initiatives to improve IGM's offerings and operational effectiveness.

These restructuring charges are recorded within operating and administrative expenses in the statements of earnings. At December 31, 2019, the balance of restructuring provisions, including those above, of $97 million ($129 million in 2018) is recorded in other liabilities.

NOTE 24 Financing Charges

	Years ended December 31, 2019	2018
Interest on debentures and other debt instruments	378	320
Interest on lease liabilities	27	–
Interest on capital trust debentures	11	11
Other	19	29
	435	360

NOTE 25 Pension Plans and Other Post-Employment Benefits

CHARACTERISTICS, FUNDING AND RISKS

The Corporation and its subsidiaries maintain funded defined benefit pension plans for certain employees and advisors as well as unfunded supplementary employee retirement plans (SERP) for certain employees. The Corporation and its subsidiaries also maintain defined contribution pension plans for eligible employees and advisors.

The defined benefit pension plans provide pensions based on length of service and final average earnings. For most plans, active plan participants share in the cost by making contributions in respect of current service. Certain pension payments are indexed either on an ad hoc basis or a guaranteed basis. The determination of the defined benefit obligation reflects pension benefits, in accordance with the terms of the plans, and assuming the plans are not terminated. The assets supporting the funded pension plans are held in separate trusteed pension funds. The obligations for the wholly unfunded plans are supported by assets of the Corporation or its subsidiaries, as applicable.

The defined benefit plans of the Corporation, Lifeco’s subsidiaries and IGM are closed to new entrants with plans in several geographies also closed to future defined benefit accruals. New hires are only eligible for defined contribution benefits. As a result, defined benefit plan exposure will continue to be reduced in future years.

The defined contribution pension plans provide pension benefits based on accumulated employee and employer contributions. Contributions to these plans are a set percentage of employees’ annual income and may be subject to certain vesting requirements.

The Corporation and its subsidiaries also provide unfunded post-employment health, dental and life insurance benefits to eligible employees, advisors and their dependents. Lifeco’s subsidiaries plans are closed to new hires and were previously amended to limit which employees could become eligible to receive benefits. The obligations for these benefits are supported by assets of the Corporation or its subsidiaries, as applicable.

The Corporation and its subsidiaries have pension and benefit committees or a trusteed arrangement that provides oversight for the benefit plans. The benefit plans are monitored on an ongoing basis to assess the benefit, funding and investment policies, financial status, and funding requirements. Significant changes to benefit plans require approval.

The Corporation and its subsidiaries’ funding policy for the funded pension plans is to make annual contributions equal to or greater than those required by the applicable regulations and plan provisions that govern the funding of the plans. Where funded plans have a net defined benefit asset, the Corporation and its subsidiaries determine if an economic benefit exists in the form of potential reductions in future contributions, the present value of future expenses to be paid from the plan and in the form of surplus refunds, where permitted by applicable regulation and plan provisions.

By their design, the defined benefit plans expose the Corporation and its subsidiaries to the typical risks faced by defined benefit plans, such as investment performance, changes to the discount rates used to value the obligations, longevity of plan members, and future inflation. Pension and benefit risk is managed by regular monitoring of the plans, applicable regulations and other factors that could impact the expenses and cash flows of the Corporation and its subsidiaries.

NOTE 25 Pension Plans and Other Post-Employment Benefits (continued)

PLAN ASSETS, BENEFIT OBLIGATION AND FUNDED STATUS

	December 31, 2019		December 31, 2018	
	Defined benefit pension plans	Other post-employment benefits	Defined benefit pension plans	Other post-employment benefits
Change in fair value of plan assets				
Fair value of plan assets, beginning of year	6,912	–	7,114	–
Interest income	227	–	222	–
Employee contributions	22	–	15	–
Employer contributions	212	22	224	21
Actual return on assets greater (lower) than interest income	711	–	(372)	–
Benefits paid	(306)	(22)	(393)	(21)
Settlement	(113)	–	(7)	–
Administrative expenses	(10)	–	(8)	–
Foreign exchange and other	(187)	–	117	–
Fair value of plan assets, end of year	7,468	–	6,912	–
Change in defined benefit obligation				
Defined benefit obligation, beginning of year	7,921	416	8,136	455
Current service cost	103	3	137	4
Employee contributions	22	–	15	–
Interest cost	261	16	253	16
Actuarial (gains) losses on:				
Financial assumption changes	1,027	31	(316)	(21)
Demographic assumption changes	(25)	(5)	(68)	(15)
Arising from member experience	13	(3)	21	(4)
Benefits paid	(306)	(22)	(393)	(21)
Past service cost and plan amendments	(1)	–	6	–
Settlement	(150)	–	(8)	–
Curtailment	(3)	–	(4)	–
Foreign exchange and other	(200)	(1)	142	2
Defined benefit obligation, end of year	8,662	435	7,921	416
Funded status				
Fund deficit	(1,194)	(435)	(1,009)	(416)
Unrecognized amount due to asset ceiling (see below)	(37)	–	(103)	–
Accrued benefit liability	(1,231)	(435)	(1,112)	(416)

The aggregate defined benefit obligation of pension plans is as follows:

	December 31, 2019	December 31, 2018
Wholly or partly funded plans	8,117	7,415
Wholly unfunded plans	545	506

The net accrued benefit asset (liability) shown above is presented in these financial statements as follows:

	December 31, 2019			December 31, 2018		
	Defined benefit pension plans	Other post-employment benefits	Total	Defined benefit pension plans	Other post-employment benefits	Total
Pension benefit assets [Note 10]	231	–	231	148	–	148
Pension and other post-employment benefit liabilities [Note 16]	(1,462)	(435)	(1,897)	(1,260)	(416)	(1,676)
Accrued benefit liability	(1,231)	(435)	(1,666)	(1,112)	(416)	(1,528)

NOTE 25 Pension Plans and Other Post-Employment Benefits (continued)

Under International Financial Reporting Interpretations Committee (IFRIC) 14, *The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction*, the Corporation and its subsidiaries must assess whether the pension asset has economic benefit to the Corporation and its subsidiaries through future contribution reductions, the present value of future expenses to be paid from the plan, or surplus refunds; in the event the Corporation and its subsidiaries are not entitled to a benefit, a limit or "asset ceiling" is required on the balance sheet. The following provides a breakdown of the changes in the asset ceiling.

	December 31, 2019	December 31, 2018
Asset ceiling, beginning of year	103	92
Interest on beginning-of-period asset ceiling	4	3
Change in asset ceiling	(70)	8
Asset ceiling, end of year	37	103

PENSION AND OTHER POST-EMPLOYMENT BENEFIT EXPENSE

	December 31, 2019		December 31, 2018	
	Pension plans	Other post-employment benefits	Pension plans	Other post-employment benefits
Defined benefit current service cost	103	3	137	4
Net interest cost	38	16	34	16
Past service cost, plan amendments, curtailments and settlements	(41)	–	1	–
Administration fees	10	–	8	–
Defined contribution current service cost	124	–	110	–
Expense recognized in net earnings	234	19	290	20
Actuarial (gains) losses recognized	1,015	23	(363)	(40)
Return on assets (greater) lower than interest income	(711)	–	372	–
Change in asset ceiling	(70)	–	8	–
Expense (recovery) recognized in other comprehensive income (loss)	234	23	17	(40)
Total expense (income)	468	42	307	(20)

In 2019, the Corporation and its subsidiaries incurred $6 million of actuarial losses ($2 million of actuarial gains in 2018) for pension plan remeasurements not included in the table shown above. This relates to the share of actuarial gains (losses) for investments in jointly controlled corporations and associates.

ASSET ALLOCATION BY MAJOR CATEGORY WEIGHTED BY PLAN ASSETS

	Defined benefit pension plans	
Percentage (%)	December 31, 2019	December 31, 2018
Equity securities	44	42
Debt securities	46	48
All other assets	10	10
	100	100

No plan assets are directly invested in the Corporation's or subsidiaries' securities. Lifeco's plan assets include investments in segregated and other funds managed by subsidiaries of Lifeco of $6,031 million at December 31, 2019 ($5,501 million at December 31, 2018) of which $5,961 million ($5,431 million at December 31, 2018) are included in the balance sheets. Plan assets do not include any property occupied or other assets used by Lifeco. IGM's plan assets are invested in IGM's mutual funds. A portion of Power Financial's plan assets are invested in segregated funds managed by a subsidiary of Lifeco.

NOTE 25 Pension Plans and Other Post-Employment Benefits (continued)

DETAILS OF DEFINED BENEFIT OBLIGATION

Portion of defined benefit obligation subject to future salary increases

	December 31, 2019		December 31, 2018	
	Defined benefit pension plans	Other post-employment benefits	Defined benefit pension plans	Other post-employment benefits
Benefit obligation without future salary increases	7,918	435	7,206	416
Effect of assumed future salary increases	744	–	715	–
Defined benefit obligation	8,662	435	7,921	416

Allocation of defined benefit obligation by membership

	December 31, 2019		December 31, 2018	
Percentage (%)	Defined benefit pension plans	Other post-employment benefits	Defined benefit pension plans	Other post-employment benefits
Actives	42	19	40	23
Deferred vesteds	18	–	21	–
Retirees	40	81	39	77
Total	100	100	100	100
Weighted average duration of defined benefit obligation (in years)	18.4	11.7	17.8	11.4

CASH FLOW INFORMATION

The expected employer contributions for the year 2020 are as follows:

	Pension plans	Other post-employment benefits
Funded (wholly or partly) defined benefit plans	150	–
Unfunded defined benefit plans	25	24
Defined contribution plans	125	–
Total	300	24

ACTUARIAL ASSUMPTIONS AND SENSITIVITIES

Actuarial assumptions

	December 31, 2019		December 31, 2018	
Percentage (%)	Defined benefit pension plans	Other post-employment benefits	Defined benefit pension plans	Other post-employment benefits
Range of discount rates				
To determine benefit cost	3.4 – 3.9	3.7 – 4.4	3.1 – 3.6	3.5 – 3.8
To determine accrued benefit obligation at year-end	2.6 – 3.2	3.1 – 3.2	3.4 – 3.9	3.7 – 4.4
Weighted average assumptions used to determine benefit cost [1]				
Discount rate	3.6	3.9	3.2	3.5
Rate of compensation increase	3.1	–	3.2	–
Weighted average assumptions used to determine accrued benefit obligation at year-end [1]				
Discount rate	2.8	3.1	3.6	3.9
Rate of compensation increase	3.0	–	3.1	–
Weighted average healthcare trend rates [1]				
Initial healthcare trend rate		4.7		4.9
Ultimate healthcare trend rate		4.1		4.1
Year ultimate trend rate is reached		2039		2040

[1] Weighted based on the obligations of each plan.

NOTE 25 Pension Plans and Other Post-Employment Benefits (continued)

Sample life expectancies based on mortality assumptions

	December 31, 2019		December 31, 2018	
	Defined benefit pension plans	Other post-employment benefits	Defined benefit pension plans	Other post-employment benefits
Weighted average life expectancies based on mortality assumptions [1]:				
Male				
Age 65 in fiscal year	22.6	22.4	22.6	22.3
Age 65 for those age 35 in the fiscal year	24.6	23.9	24.6	24.0
Female				
Age 65 in fiscal year	24.7	24.7	24.8	24.8
Age 65 for those age 35 in the fiscal year	26.7	26.2	26.7	26.3

[1] Weighted based on the obligations of each plan.

Mortality assumptions are significant in measuring the defined benefit obligation for defined benefit plans. The period of time over which benefits are assumed to be paid is based on best estimates of future mortality, including allowances for mortality improvements. This estimate is subject to considerable uncertainty and judgment is required in establishing this assumption. The mortality assumptions applied by the Corporation and its subsidiaries take into consideration average life expectancy, including allowances for future longevity improvements as appropriate, and reflect variations in such factors as age, gender and geographic location.

The mortality tables are reviewed at least annually, and assumptions are in accordance with accepted actuarial practice. Emerging plan experience is reviewed and considered in establishing the best estimate for future mortality.

Impact of changes to assumptions on defined benefit obligation

	December 31, 2019	
	1% increase	1% decrease
Defined benefit pension plans:		
Impact of a change to the discount rate	(1,375)	1,776
Impact of a change to the rate of compensation increase	353	(324)
Impact of a change to the rate of inflation	649	(582)
Other post-employment benefits:		
Impact of a change to the discount rate	(46)	56
Impact of a change to assumed medical cost trend rates	35	(29)

To measure the impact of a change in an assumption, all other assumptions were held constant. It would be expected that there would be interaction between at least some of the assumptions and therefore the sensitivity analysis presented may not be representative of the actual change.

NOTE 26 Derivative Financial Instruments

In the normal course of managing exposure to fluctuations in interest and foreign exchange rates, and to market risks, the Corporation and its subsidiaries are end-users of various derivative financial instruments. Contracts are either exchange traded or over-the-counter with counterparties that are credit-worthy financial intermediaries.

The following tables summarize the portfolio of derivative financial instruments of the Corporation and its subsidiaries:

	Notional amount					
December 31, 2019	1 year or less	1–5 years	Over 5 years	Total	Maximum credit risk	Total fair value
Derivatives not designated as accounting hedges						
Interest rate contracts						
Swaps	1,075	2,119	2,389	5,583	198	156
Options purchased	35	184	25	244	–	–
Futures – long	9	3	–	12	–	–
Futures – short	10	7	–	17	–	–
	1,129	2,313	2,414	5,856	198	156
Foreign exchange contracts						
Forward contracts	1,342	–	–	1,342	17	15
Cross-currency swaps	299	2,395	10,345	13,039	209	(1,135)
	1,641	2,395	10,345	14,381	226	(1,120)
Other derivative contracts						
Equity contracts	105	–	–	105	2	2
Futures – long	13	–	–	13	–	–
Futures – short	774	–	–	774	–	(2)
Other forward contracts	1,709	–	–	1,709	2	2
	2,601	–	–	2,601	4	2
	5,371	4,708	12,759	22,838	428	(962)
Fair value hedges						
Foreign exchange contracts						
Forward contracts	74	–	–	74	2	2
Cash flow hedges						
Interest rate contracts						
Swaps	–	60	75	135	11	10
Other derivative contracts						
Equity contracts	16	45	–	61	7	7
	16	105	75	196	18	17
Net investment hedges						
Foreign exchange contracts						
Forward contracts	641	524	–	1,165	24	17
	6,102	5,337	12,834	24,273	472	(926)

NOTE 26 Derivative Financial Instruments (continued)

	Notional amount					
December 31, 2018	1 year or less	1–5 years	Over 5 years	Total	Maximum credit risk	Total fair value
Derivatives not designated as accounting hedges						
Interest rate contracts						
Swaps	1,007	2,192	2,149	5,348	126	71
Options purchased	47	225	79	351	43	43
Futures – long	46	26	–	72	–	–
	1,100	2,443	2,228	5,771	169	114
Foreign exchange contracts						
Forward contracts	1,066	–	–	1,066	3	(16)
Cross-currency swaps	560	1,968	9,209	11,737	219	(1,224)
	1,626	1,968	9,209	12,803	222	(1,240)
Other derivative contracts						
Equity contracts	637	–	–	637	8	(8)
Futures – long	12	–	–	12	–	–
Futures – short	1,059	–	–	1,059	8	6
Other forward contracts	951	–	–	951	13	13
	2,659	–	–	2,659	29	11
	5,385	4,411	11,437	21,233	420	(1,115)
Cash flow hedges						
Interest rate contracts						
Swaps	–	122	73	195	8	7
Other derivative contracts						
Equity contracts	19	38	–	57	–	(7)
	19	160	73	252	8	–
Net investment hedges						
Foreign exchange contracts						
Forward contracts	524	516	–	1,040	5	(45)
	5,928	5,087	11,510	22,525	433	(1,160)

The amount subject to maximum credit risk is limited to the current fair value of the instruments which are in a gain position. The maximum credit risk represents the total cost of all derivative contracts with positive values and does not reflect actual or expected losses. The total fair value represents the total amount that the Corporation and its subsidiaries would receive (or pay) to terminate all agreements at year-end. However, this would not result in a gain or loss to the Corporation and its subsidiaries as the derivative instruments which correlate to certain assets and liabilities provide offsetting gains or losses.

NOTE 26 Derivative Financial Instruments (continued)

The Corporation and its subsidiaries use the following derivatives:

Type	Purpose
Interest rate contracts	Interest rate swaps, futures and options are used as part of a portfolio of assets to manage interest rate risk associated with investment activities and insurance and investment contract liabilities and to reduce the impact of fluctuating interest rates on the mortgage banking operations, intermediary operations and debt instruments. Interest rate swap agreements require the periodic exchange of payments without the exchange of the notional principal amount on which payments are based. Call options grant the Corporation and its subsidiaries the right to enter into a swap with predetermined fixed rate payments over a predetermined time period on the exercise date. Call options are used to manage the variability in future interest payments due to a change in credited interest rates and the related potential change in cash flows due to surrenders. Call options are also used to hedge minimum rate guarantees.
Foreign exchange contracts	Cross-currency swaps are used in combination with other investments to manage foreign exchange risk associated with investment activities and insurance and investment contract liabilities. Under these swaps, principal amounts and fixed or floating interest payments may be exchanged in different currencies. The Corporation and its subsidiaries may also enter into certain foreign exchange forward contracts to hedge certain product liabilities, cash and cash equivalents and cash flows.
Other derivative contracts	Equity index swaps, futures and options are used to hedge certain product liabilities. Equity index swaps are also used as substitutes for cash instruments and are used to periodically hedge the market risk associated with certain fee income. Equity put options are used to manage the potential credit risk impact of significant declines in certain equity markets. Equity forward agreements and total return swaps are used to manage exposure to fluctuations in the total return of common shares related to deferred compensation arrangements. Forward agreements and total return swaps require the exchange of net contractual payments periodically or at maturity without the exchange of the notional principal amounts on which the payments are based. Certain of these instruments are not designated as hedges.

The ineffective portion of the cash flow hedges during 2019, which includes interest rate contracts and foreign exchange contracts, and the anticipated net gains (losses) reclassified out of other comprehensive income within the next twelve months is nil. The maximum time frame for which variable cash flows are hedged is 50 years.

ENFORCEABLE MASTER NETTING AGREEMENTS OR SIMILAR AGREEMENTS

The Corporation and its subsidiaries enter into the International Swaps and Derivative Association's (ISDA's) master agreements for transacting over-the-counter derivatives. The Corporation and its subsidiaries receive and pledge collateral according to the related ISDA's Credit Support Annexes. The ISDA's master agreements do not meet the criteria for offsetting on the balance sheets because they create a right of set-off that is enforceable only in the event of default, insolvency, or bankruptcy.

For exchange-traded derivatives subject to derivative clearing agreements with exchanges and clearing houses, there is no provision for set-off at default. Initial margin is excluded from the tables below as it would become part of a pooled settlement process.

NOTE 26 Derivative Financial Instruments (continued)

Lifeco's reverse repurchase agreements are also subject to right of set-off in the event of default. These transactions and agreements include master netting arrangements which provide for the netting of payment obligations between Lifeco and its counterparties in the event of default.

The following disclosure shows the potential effect on the balance sheets of financial instruments that have been shown in a gross position where right of set-off exists under certain circumstances that do not qualify for netting on the balance sheets.

				December 31, 2019
		Related amounts not set off in the balance sheet		
	Gross amount of financial instruments presented in the balance sheet	Offsetting counterparty position [1]	Financial collateral received / pledged [2]	Net exposure
Financial instruments (assets)				
Derivative financial instruments	472	(324)	(107)	41
Reverse repurchase agreements [3]	4	–	(4)	–
	476	(324)	(111)	41
Financial instruments (liabilities)				
Derivative financial instruments	1,398	(324)	(556)	518
	1,398	(324)	(556)	518

				December 31, 2018
		Related amounts not set off in the balance sheet		
	Gross amount of financial instruments presented in the balance sheet	Offsetting counterparty position [1]	Financial collateral received / pledged [2]	Net exposure
Financial instruments (assets)				
Derivative financial instruments	433	(292)	(101)	40
Reverse repurchase agreements [3]	15	–	(15)	–
	448	(292)	(116)	40
Financial instruments (liabilities)				
Derivative financial instruments	1,593	(292)	(599)	702
	1,593	(292)	(599)	702

[1] Includes counterparty amounts recognized on the balance sheets where the Corporation and its subsidiaries have a potential offsetting position (as described above) but does not meet the criteria for offsetting on the balance sheets, excluding collateral.

[2] Financial collateral presented above excludes overcollateralization and, for exchange-traded derivatives, initial margin. Financial collateral received on reverse repurchase agreements is held by a third party. Total financial collateral, including initial margin and overcollateralization, received on derivative assets was $156 million ($113 million at December 31, 2018), received on reverse repurchase agreements was $4 million ($15 million at December 31, 2018), and pledged on derivative liabilities was $634 million ($691 million at December 31, 2018).

[3] Assets related to reverse repurchase agreements are included in bonds on the balance sheets.

NOTE 27 Fair Value Measurement

The following tables present the carrying amounts and fair value of the Corporation's assets and liabilities recorded or disclosed at fair value, including their levels in the fair value hierarchy using the valuation methods and assumptions described in the summary of significant accounting policies (Note 2) and below. Fair values are management's estimates and are generally calculated using market conditions at a specific point in time and may not reflect future fair values. The calculations are subjective in nature, involve uncertainties and matters of significant judgment. The following tables distinguish between assets and liabilities recorded at fair value on a recurring basis and those for which fair value is disclosed.

These tables exclude fair value information for financial assets and financial liabilities not measured at fair value if the carrying amount is a reasonable approximation of the fair value. Items excluded are: cash and cash equivalents, dividends, interest and accounts receivable, loans to policyholders, certain other financial assets, accounts payable, dividends and interest payable and certain other financial liabilities.

December 31, 2019	Carrying value	Level 1	Level 2	Level 3	Total fair value
Assets					
Assets recorded at fair value					
Bonds					
Fair value through profit or loss	85,845	–	85,778	67	85,845
Available for sale	11,910	–	11,910	–	11,910
Mortgage and other loans					
Fair value through profit or loss	1,314	–	–	1,314	1,314
Shares					
Fair value through profit or loss	9,925	9,011	118	796	9,925
Available for sale	113	12	42	59	113
Investment properties	5,887	–	–	5,887	5,887
Funds held by ceding insurers	6,661	216	6,445	–	6,661
Derivative instruments	472	–	468	4	472
Reinsurance assets	127	–	127	–	127
Other assets	1,490	375	1,115	–	1,490
	123,744	9,614	106,003	8,127	123,744
Assets disclosed at fair value					
Bonds					
Loans and receivables	17,372	–	19,281	63	19,344
Mortgage and other loans					
Loans and receivables	30,131	–	24,177	6,908	31,085
Shares					
Available for sale [1]	150	–	–	150	150
Funds held by ceding insurers	80	–	–	80	80
	47,733	–	43,458	7,201	50,659
Total	171,477	9,614	149,461	15,328	174,403
Liabilities					
Liabilities recorded at fair value					
Investment contract liabilities	1,656	–	1,656	–	1,656
Derivative instruments	1,398	3	1,390	5	1,398
Other liabilities	411	43	355	13	411
	3,465	46	3,401	18	3,465
Liabilities disclosed at fair value					
Obligations to securitization entities	6,914	–	–	6,997	6,997
Debentures and other debt instruments	8,250	437	9,128	–	9,565
Deposits and certificates	886	–	887	–	887
	16,050	437	10,015	6,997	17,449
Total	19,515	483	13,416	7,015	20,914

[1] Fair value of certain shares available for sale cannot be reliably measured, therefore these investments are recorded at cost.

NOTE 27 Fair Value Measurement (continued)

December 31, 2018	Carrying value	Level 1	Level 2	Level 3	Total fair value
Assets					
Assets recorded at fair value					
Bonds					
Fair value through profit or loss	91,815	–	91,748	67	91,815
Available for sale	13,532	–	13,532	–	13,532
Mortgage and other loans					
Fair value through profit or loss	817	–	4	813	817
Shares					
Fair value through profit or loss	8,794	8,341	–	453	8,794
Available for sale	213	9	–	204	213
Investment properties	5,218	–	–	5,218	5,218
Funds held by ceding insurers	7,155	230	6,925	–	7,155
Derivative instruments	433	8	416	9	433
Assets held for sale [1]	782	22	731	29	782
Other assets	927	597	330	–	927
	129,686	9,207	113,686	6,793	129,686
Assets disclosed at fair value					
Bonds					
Loans and receivables	19,722	–	20,524	95	20,619
Mortgage and other loans					
Loans and receivables	31,900	–	24,944	7,405	32,349
Shares					
Available for sale [2]	239	–	–	239	239
Funds held by ceding insurers	91	–	–	91	91
	51,952	–	45,468	7,830	53,298
Total	181,638	9,207	159,154	14,623	182,984
Liabilities					
Liabilities recorded at fair value					
Investment contract liabilities	1,711	–	1,711	–	1,711
Investment contract liabilities held for sale	27	–	1	26	27
Derivative instruments	1,593	2	1,587	4	1,593
Other liabilities	162	8	84	70	162
	3,493	10	3,383	100	3,493
Liabilities disclosed at fair value					
Obligations to securitization entities	7,370	–	–	7,437	7,437
Debentures and other debt instruments	8,492	490	8,734	–	9,224
Deposits and certificates	622	–	622	–	622
	16,484	490	9,356	7,437	17,283
Total	19,977	500	12,739	7,537	20,776

[1] Excludes cash and cash equivalents and loans to policyholders as the carrying value is a reasonable approximation of the fair value.

[2] Fair value of certain shares available for sale cannot be reliably measured, therefore these investments are recorded at cost.

There were no significant transfers between Level 1 and Level 2 in 2019 and 2018.

NOTE 27 Fair Value Measurement (continued)

The Corporation's assets and liabilities recorded at fair value and those for which fair value is disclosed have been categorized based upon the following fair value hierarchy:

Level	Definition	Financial assets and liabilities
Level 1	Utilize observable, unadjusted quoted prices in active markets for identical assets or liabilities that the Corporation has the ability to access.	▪ actively exchange-traded equity securities; ▪ exchange-traded futures; ▪ mutual and segregated funds which have available prices in an active market with no redemption restrictions; ▪ open-end investment fund units and other liabilities in instances where there are quoted prices available from active markets.
Level 2	Utilize other-than-quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly. Level 2 inputs include quoted prices for similar assets and liabilities in active markets, and inputs other-than-quoted prices that are observable for the asset or liability, such as interest rates and yield curves that are observable at commonly quoted intervals. The fair values for some Level 2 securities were obtained from a pricing service. The pricing service inputs include, but are not limited to, benchmark yields, reported trades, broker/dealer quotes, issuer spreads, two-sided markets, benchmark securities, offers and reference data.	▪ assets and liabilities priced using a matrix which is based on credit quality and average life; ▪ government and agency securities; ▪ restricted shares; ▪ certain private bonds and equities; ▪ most investment-grade and high-yield corporate bonds; ▪ most asset-backed securities; ▪ most over-the-counter derivatives; ▪ most mortgage and other loans; ▪ deposits and certificates; ▪ most debentures and other debt instruments; ▪ most of the investment contracts that are measured at fair value through profit or loss.
Level 3	Utilize one or more significant inputs that are not based on observable market inputs and include situations where there is little, if any, market activity for the asset or liability. The values of the majority of Level 3 securities were obtained from single-broker quotes, internal pricing models, external appraisers or by discounting projected cash flows.	▪ certain bonds; ▪ certain asset-backed securities; ▪ certain private equities; ▪ certain mortgage and other loans, including equity-release mortgages; ▪ investments in mutual and segregated funds where there are redemption restrictions; ▪ certain over-the-counter derivatives; ▪ investment properties; ▪ obligations to securitization entities; ▪ certain other debt instruments.

NOTE 27 Fair Value Measurement (continued)

The following tables present additional information about assets and liabilities measured at fair value on a recurring basis for which the Corporation and its subsidiaries have utilized Level 3 inputs to determine fair value for the years ended December 31, 2019 and 2018.

December 31, 2019	Bonds Fair value through profit or loss	Mortgages and other loans Fair value through profit or loss	Shares Fair value through profit or loss[2]	Shares Available for sale	Investment properties	Derivatives, net	Assets (liabilities) held for sale and other assets (liabilities)	Investment contract liabilities	Total
Balance, beginning of year									
As previously reported	67	813	453	204	5,218	5	(67)	–	6,693
Change in accounting policy [Note 2]	–	–	–	–	29	–	–	–	29
Restated balance, beginning of year	67	813	453	204	5,247	5	(67)	–	6,722
Total gains (losses)									
In net earnings	4	109	64	27	37	(5)	(5)	–	231
In other comprehensive income [1]	(4)	(5)	–	(23)	(36)	–	(1)	–	(69)
Purchases	–	–	346	9	644	(2)	–	–	997
Issues	–	469	–	–	–	–	–	–	469
Sales	–	–	(67)	(8)	(5)	–	(26)	–	(106)
Settlements	–	(72)	–	–	–	1	45	–	(26)
Other [3]	–	–	–	(150)	–	–	41	–	(109)
Balance, end of year	67	1,314	796	59	5,887	(1)	(13)	–	8,109

[1] Amount of other comprehensive income for fair value through profit or loss bonds, mortgage and other loans and investment properties represents the unrealized gains (losses) on foreign exchange.

[2] Includes investments in mutual and segregated funds where there are redemption restrictions. The fair value is based on observable, quoted prices.

[3] In January 2019, the investment in Personal Capital was reclassified from available for sale to an investment in an associate (Note 8).

December 31, 2018	Bonds Fair value through profit or loss	Mortgages and other loans Fair value through profit or loss	Shares Fair value through profit or loss[2]	Shares Available for sale	Investment properties	Derivatives, net	Assets (liabilities) held for sale and other assets (liabilities)	Investment contract liabilities	Total
Balance, beginning of year	65	–	244	169	4,851	4	(62)	(22)	5,249
Total gains (losses)									
In net earnings	–	(24)	28	–	33	(12)	–	–	25
In other comprehensive income [1]	2	20	–	38	70	–	–	–	130
Business acquisition	–	799	–	–	–	–	–	–	799
Purchases	–	–	249	4	356	–	–	–	609
Issues	–	76	–	–	–	–	–	–	76
Sales	–	–	(68)	(7)	(63)	–	–	–	(138)
Settlements	–	(58)	–	–	–	13	–	–	(45)
Transferred to held for sale	–	–	–	–	(29)	–	3	26	–
Other	–	–	–	–	–	–	(8)	(4)	(12)
Balance, end of year	67	813	453	204	5,218	5	(67)	–	6,693

[1] Amount of other comprehensive income for fair value through profit or loss bonds, mortgage and other loans and investment properties represents the unrealized gains (losses) on foreign exchange.

[2] Includes investments in mutual and segregated funds where there are redemption restrictions. The fair value is based on observable, quoted prices.

Transfers into Level 3 are due primarily to decreased observability of inputs in valuation methodologies. Transfers out of Level 3 are due primarily to increased observability of inputs in valuation methodologies as evidenced by corroboration of market prices with multiple pricing vendors or the lifting of redemption restrictions on investments in mutual funds and segregated funds.

NOTE 27 Fair Value Measurement (continued)

The following table sets out information about significant unobservable inputs used at year-end in measuring assets and liabilities categorized as Level 3 in the fair value hierarchy.

Type of asset	Valuation approach	Significant unobservable input	Input value	Inter-relationship between key unobservable inputs and fair value measurement
Investment properties	Investment property valuations are generally determined using property valuation models based on expected capitalization rates and models that discount expected future net cash flows. The determination of the fair value of investment property requires the use of estimates such as future cash flows (such as future leasing assumptions, rental rates, capital and operating expenditures) and discount, reversionary and overall capitalization rates applicable to the asset based on current market rates.	Discount rate	Range of 2.6% – 10.3%	A decrease in the discount rate would result in an increase in fair value. An increase in the discount rate would result in a decrease in fair value.
		Reversionary rate	Range of 4.3% – 6.8%	A decrease in the reversionary rate would result in an increase in fair value. An increase in the reversionary rate would result in a decrease in fair value.
		Vacancy rate	Weighted average of 2.4%	A decrease in the expected vacancy rate would generally result in an increase in fair value. An increase in the expected vacancy rate would generally result in a decrease in fair value.
Mortgage and other loans (fair value through profit or loss)	The valuation approach for equity-release mortgages is to use an internal valuation model to determine the projected asset cash flows, including the stochastically calculated cost of the no-negative-equity guarantee for each individual loan, to aggregate these across all loans and to discount those cash flows back to the valuation date. The projection is done monthly until expected redemption of the loan either voluntarily or on the death/entering into long-term care of the loanholders.	Discount rate	Range of 3.6% – 4.8%	A decrease in the discount rate would result in an increase in fair value. An increase in the discount rate would result in a decrease in fair value.
Shares	The determination of the fair value of shares requires the use of estimates such as future cash flows, discount rates, projected earnings multiples, or recent transactions.	Discount rate	Various	A decrease in the discount rate would result in an increase in fair value. An increase in the discount rate would result in a decrease in fair value.

NOTE 28 Other Comprehensive Income

Year ended December 31, 2019	Items that may be reclassified subsequently to net earnings			Items that will not be reclassified to net earnings		
	Investment revaluation and cash flow hedges	Foreign currency translation	Share of jointly controlled corporations and associates	Actuarial gains (losses) on defined benefit pension plans	Share of jointly controlled corporations and associates	Total
Balance, beginning of year	43	1,190	1,107	(535)	(17)	1,788
Other comprehensive income (loss)	73	(345)	523	(139)	(6)	106
Other	–	(16)	–	6	–	(10)
Balance, end of year	116	829	1,630	(668)	(23)	1,884

Year ended December 31, 2018	Items that may be reclassified subsequently to net earnings			Items that will not be reclassified to net earnings		
	Investment revaluation and cash flow hedges	Foreign currency translation	Share of jointly controlled corporations and associates	Actuarial gains (losses) on defined benefit pension plans	Share of jointly controlled corporations and associates	Total
Balance, beginning of year	98	661	1,134	(557)	(19)	1,317
Other comprehensive income (loss)	(55)	529	(27)	22	2	471
Balance, end of year	43	1,190	1,107	(535)	(17)	1,788

NOTE 29 Earnings Per Share

The following is a reconciliation of the numerators and the denominators used in the computations of earnings per share:

	Years ended December 31, 2019	2018
Earnings		
Net earnings attributable to shareholders	2,103	2,383
Dividends on perpetual preferred shares	(139)	(138)
Net earnings attributable to common shareholders	1,964	2,245
Dilutive effect of subsidiaries' outstanding stock options	–	(3)
Net earnings adjusted for dilutive effect	1,964	2,242
Number of common shares [millions]		
Weighted average number of common shares outstanding – Basic	678.6	714.0
Potential exercise of outstanding stock options	0.3	0.3
Weighted average number of common shares outstanding – Diluted	678.9	714.3
Net earnings per common share		
Basic	2.89	3.15
Diluted	2.89	3.14

For 2019, 11.0 million stock options (8.9 million in 2018) have been excluded from the computation of diluted earnings per share as they were anti-dilutive.

NOTE 30 Related Parties

PRINCIPAL SUBSIDIARIES, JOINTLY CONTROLLED CORPORATIONS AND ASSOCIATES

The financial statements of Power Financial include the operations of the following direct and indirect subsidiaries and investments in jointly controlled corporations and associates:

			% equity interest	
Corporations	Incorporated in	Primary business operation	2019	2018
Great-West Lifeco Inc. [1]	Canada	Financial services holding company	70.9	71.8
The Great-West Life Assurance Company	Canada	Insurance and wealth management	100.0	100.0
London Life Insurance Company	Canada	Insurance and wealth management	100.0	100.0
The Canada Life Assurance Company	Canada	Insurance and wealth management	100.0	100.0
Irish Life Group Limited	Ireland	Insurance and wealth management	100.0	100.0
Great-West Life & Annuity Insurance Company	United States	Insurance and wealth management	100.0	100.0
Putnam Investments, LLC [2]	United States	Financial services	96.5	96.7
IGM Financial Inc. [3]	Canada	Wealth and asset management	66.0	65.2
IG Wealth Management	Canada	Financial services	100.0	100.0
Mackenzie Financial Corporation	Canada	Investment manager	100.0	100.0
China Asset Management Co., Ltd.	China	Asset management company	13.9	13.9
Parjointco N.V.	Netherlands	Holding company	50.0	50.0
Pargesa Holding SA	Switzerland	Holding company	55.5	55.5
Portag3 Ventures LP [4]	Canada	Investment fund	100.0	100.0
Portag3 Ventures II LP [5]	Canada	Investment fund	23.2	47.0
Wealthsimple Financial Corp. [6]	Canada	Financial services	84.9	81.7
Koho Financial Inc. [7]	Canada	Financial services	54.4	63.4

[1] Power Financial holds a 66.9% equity interest and IGM Financial holds a 4.0% equity interest in Lifeco.

[2] Lifeco holds 100% of the voting shares and 96.5% of the total outstanding shares.

[3] Power Financial holds a 62.1% equity interest and The Great-West Life Assurance Company holds a 3.9% equity interest in IGM Financial.

[4] Power Financial holds a 63.0% equity interest and Lifeco and IGM Financial each hold an equity interest of 18.5% in Portag3.

[5] Power Financial, Lifeco and IGM Financial each hold an equal equity interest of 7.7% in Portag3 II.

[6] Power Financial, Portag3 and IGM Financial hold an equity interest of 21.2%, 16.8% and 46.9%, respectively, in Wealthsimple.

[7] Power Financial, Lifeco and IGM Financial hold equal interests of 6.5% and Portag3 and Portag3 II hold interests of 2.7% and 32.1%, respectively, in Koho.

TRANSACTIONS WITH RELATED PARTIES

In the normal course of business, Power Financial and its subsidiaries enter into various transactions: subsidiaries provide insurance benefits, sub-advisory services, distribution of insurance products and/or other administrative services to other subsidiaries of the group and to the Corporation; loans to employees; as well as capital commitments to investment funds, performance fees and base management fees paid to subsidiaries of the group. In all cases, these transactions are in the normal course of operations and have been recorded at fair value. Balances and transactions between the Corporation and its subsidiaries have been eliminated on consolidation and are not disclosed in this note. Details of other transactions between the Corporation and related parties are disclosed below.

As part of the PFC SIB, Power Corporation, the parent company of the Corporation, participated in the PFC SIB and tendered its Power Financial common shares on a proportionate basis and on a non-proportionate basis (Note 18).

In 2019, IGM sold residential mortgage loans to Great-West Life and London Life for $11 million ($61 million in 2018).

In October 2017, IGM obtained advanced tax rulings which permitted tax loss consolidation transactions with a subsidiary of Power Corporation, whereby shares of a subsidiary that has generated tax losses may be acquired by IGM in each year up to and including 2020. The acquisitions are expected to close in the fourth quarter of each year. IGM will recognize the benefit of the tax losses realized throughout the year. On December 31, 2019 and December 31, 2018, IGM acquired shares of the subsidiary.

Lifeco provides asset management and administrative services for employee benefit plans relating to pension and other post-employment benefits for employees of Power Corporation, Power Financial and Lifeco and its subsidiaries.

NOTE 30 Related Parties (continued)

KEY MANAGEMENT COMPENSATION

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Corporation, directly or indirectly. The persons included in the key management personnel are the members of the Board of Directors of the Corporation, as well as certain management executives of the Corporation and its subsidiaries.

The following table describes all compensation paid to, awarded to, or earned by each of the key management personnel for services rendered in all capacities to the Corporation and its subsidiaries:

	Years ended December 31,	
	2019	2018
Compensation and employee benefits	26	20
Post-employment benefits	4	3
Share-based payments	18	18
	48	41

NOTE 31 Contingent Liabilities

The Corporation and its subsidiaries are from time to time subject to legal actions, including arbitrations and class actions, arising in the normal course of business. Provisions are established if, in management of the Corporation and of its subsidiaries' judgment, it is probable a payment will be required and the amount can be reliably estimated. It is inherently difficult to predict the outcome of any of these proceedings with certainty, and it is possible that an adverse resolution could have a material adverse effect on the consolidated financial position of the Corporation. However, based on information presently known, it is not expected that any of the existing legal actions, either individually or in the aggregate, will have a material adverse effect on the consolidated financial position of the Corporation. Actual results could differ from the best estimates of the Corporation's and its subsidiaries' management.

LIFECO

A subsidiary of Lifeco in the United States is a defendant in an action in relation to its role as collateral manager of a collateralized debt obligation brought by an institution involved in the collateralized debt obligation. Lifeco's management believes the resolution of this matter will not have a material adverse effect on Lifeco's consolidated financial position.

Subsidiaries of Lifeco in the United States are defendants in legal actions, including class actions, relating to the administration of their staff retirement plans, or to the costs and features of certain of their retirement or fund products. Management of Lifeco believes the claims are without merit and will be aggressively defending these actions. Based on the information presently known Lifeco's management believes these actions will not have a material adverse effect on Lifeco's consolidated financial position.

A subsidiary of Lifeco, as reinsurer, is involved in an arbitration relating to the interpretation of certain provisions of a reinsurance treaty and the alleged underreporting of claims and overpayment of premium. Based on information presently known, it is difficult for Lifeco to predict the outcome of this matter with certainty, but this matter is not expected to have a material adverse effect on Lifeco's consolidated financial position.

IGM FINANCIAL

In December 2018, a proposed class action was filed in the Ontario Superior Court against Mackenzie Financial Corporation, a subsidiary of IGM, which alleges that Mackenzie should not have paid mutual fund trailing commissions to order-execution-only dealers. Although it is difficult to predict the outcome of any such legal action, based on current knowledge of IGM's management and their consultation with their legal counsel, they do not expect the outcome of any of these matters, individually or in aggregate, to have a material adverse effect on IGM's consolidated financial position.

NOTE 32 Commitments and Guarantees

GUARANTEES

In the normal course of operations, the Corporation and its subsidiaries execute agreements that provide for indemnifications to third parties in transactions such as business dispositions, business acquisitions, loans and securitization transactions. The Corporation and its subsidiaries have also agreed to indemnify their directors and certain of their officers. The nature of these agreements precludes the possibility of making a reasonable estimate of the maximum potential amount the Corporation and its subsidiaries could be required to pay third parties as the agreements often do not specify a maximum amount and the amounts are dependent on the outcome of future contingent events, the nature and likelihood of which cannot be determined. Historically, the Corporation has not made any payments under such indemnification agreements. No provisions have been recognized related to these agreements.

LETTERS OF CREDIT

Letters of credit are written commitments provided by a bank. The total amount of letter of credit facilities at Lifeco is US$2.3 billion, of which US$1.8 billion were issued as of December 31, 2019.

The Reinsurance operation also periodically uses letters of credit as collateral under certain reinsurance contracts for on-balance sheet policy liabilities.

INVESTMENT COMMITMENTS

With respect to Lifeco, commitments of investment transactions made in the normal course of operations in accordance with policies and guidelines and that are to be disbursed upon fulfilment of certain contract conditions were $1,042 million as at December 31, 2019, with $1,006 million maturing within one year and $19 million maturing within two years and $17 million maturing within three years.

PLEDGING OF ASSETS FOR REINSURANCE AGREEMENTS

In addition to the assets pledged by Lifeco disclosed elsewhere in the financial statements:

(i) The amount of assets included in the Corporation's balance sheet which have a security interest by way of pledging is $1,456 million ($1,464 million at December 31, 2018) in respect of reinsurance agreements.

In addition, under certain reinsurance contracts, bonds presented in portfolio investments are held in trust and escrow accounts. Assets are placed in these accounts pursuant to the requirements of certain legal and contractual obligations to support contract liabilities assumed.

(ii) Lifeco has pledged, in the normal course of business, $75 million ($76 million at December 31, 2018) of its assets for the purpose of providing collateral for the counterparty.

NOTE 33 Subsequent Events

POWER FINANCIAL

Reorganization

On December 13, 2019, Power Corporation and the Corporation announced the execution of a definitive agreement to effect a reorganization transaction (Reorganization) pursuant to which each common share of the Corporation (PFC Common Shares) held by holders of PFC Common Shares other than Power Corporation and certain of its affiliates (PFC Minority Shareholders), will be exchanged for 1.05 Subordinate Voting Shares of Power Corporation (PCC Subordinate Voting Shares) and $0.01 in cash.

On February 13, 2020, the Corporation successfully completed the Reorganization and Power Corporation acquired 238,693,580 Power Financial Common Shares. Subsequent to the Reorganization, Power Corporation holds 100% of the issued and outstanding Power Financial Common Shares, which were delisted from the TSX. The PFC preferred shares continue to be listed and the 6.9% debentures due March 11, 2033 remain outstanding. Power Financial incurred $9 million of costs related to this transaction, primarily related to legal and financial advisor fees. Transactions costs are included within operating and administrative expenses for the year ended December 31, 2019.

Stock Option Plan

As part of the Reorganization, Power Corporation assumes the Corporation's stock option plan. The 13,079,888 options outstanding at February 13, 2020 under the Power Financial Employee Stock Option Plan (Existing Options) were exchanged for options to acquire Subordinate Voting Shares of Power Corporation (Replacement Options).

The Replacement Options entitle the option holders to receive 1.05 Subordinate Voting Shares of Power Corporation (PCC Shares) for each common share of Power Financial (PFC Shares) at a subscription price per PCC Share equal to the subscription price per PFC Share, under the existing Power Financial Employee Stock Option Plan, divided by 1.05. The other terms of the Replacement Options are the same as the terms of the Existing Options, including terms with respect to vesting and expiry of options and termination of employment.

Performance Share Unit Plan

Also as part of the Reorganization, the Power Financial Performance Share Unit (PSU) Plan continues under the same terms and conditions as were applicable, except that the number of existing PSUs and existing PDSUs was adjusted by multiplying such number of PSUs or PDSUs by 1.05. The value of each PSU and PDSU is now based on the share price of Power Corporation's Subordinate Voting Shares.

LIFECO

Irish Progressive Services International Limited

On February 10, 2020, Irish Life announced the sale of Irish Progressive Services International Limited, a wholly owned subsidiary of Lifeco whose principal activity is the provision of outsourced administration services for life assurance companies, to a member of the FNZ group of companies. The proposed transaction will be subject to customary closing conditions including receipt of required regulatory approvals and is expected to be completed in the second half of 2020. Lifeco expects to recognize a gain related to this transaction. The carrying value and earnings of the business are immaterial to the Corporation.

PARGESA

On March 11, 2020 Parjointco and Pargesa announced an agreement for a proposed transaction that would simplify the group structure. As per the agreement, a public exchange offer will be initiated by Parjointco for all Pargesa shares not already owned by Parjointco under which Pargesa shareholders will be entitled to receive 0.93 shares of GBL for each Pargesa bearer share they hold. Following the proposed transaction, it is anticipated that Pargesa will be delisted from the SIX Swiss Exchange and Parjointco is expected to retain de facto control and maintain approximately the same economic equity interest in GBL of 28%. The proposed transaction will be subject to Parjointco holding or having received shareholder acceptances with respect to at least 90% of Pargesa's total voting rights and is conditional upon GBL shareholders approving the implementation of double-voting rights at GBL's extraordinary shareholders meeting to be held on April 28, 2020.

NOTE 33 Subsequent Events (continued)

COVID-19

Since December 31, 2019, the outbreak of the novel strain of coronavirus, specifically identified as "COVID-19", has resulted in governments worldwide enacting emergency measures to combat the spread of the virus. These measures, which include the implementation of travel bans, self-imposed quarantine periods and social distancing, have caused material disruption to businesses globally resulting in an economic slowdown. Global equity markets have experienced significant volatility and weakness. Governments and central banks have reacted with significant monetary and fiscal interventions designed to stabilize economic conditions. The duration and impact of the COVID-19 outbreak is unknown at this time, as is the efficacy of the government and central bank interventions. It is not possible to reliably estimate the length and severity of these developments and the impact on the financial results and condition of the Corporation and its operating subsidiaries in future periods.

NOTE 34 Segmented Information

The Corporation's reportable operating segments are Lifeco, IGM Financial and Pargesa. These reportable segments reflect Power Financial's management structure and internal financial reporting. The Corporation evaluates the performance based on the operating segment's contribution to earnings. The following provides a brief description of the three reportable operating segments:

- Lifeco is a financial services holding company with interests in life insurance, health insurance, retirement and investment management services, asset management and reinsurance businesses primarily in Canada, the United States and Europe.
- IGM Financial is a leading wealth and asset management company operating in Canada primarily within the advice segment of the financial services market. IGM earns revenues from a range of sources, but primarily from management fees, which are charged to its mutual funds for investment advisory and management services. IGM also earns revenues from fees charged to its mutual funds for administrative services.
- Pargesa is held through Parjointco. Pargesa is a holding company with diversified interests in Europe-based companies active in various sectors: minerals-based specialty solutions for industry; testing, inspection and certification; cement, aggregates and concrete; wines and spirits; design and distribution of sportswear; materials technology and recycling of precious metals; oil, gas and chemical industries; disposable hygiene products; supplier of equipment and project management for a wide range of processing industries primarily in the food and beverage sectors; operation of regional leisure parks; and provider of customer experience and business process outsourcing.

The column entitled "Corporate" is comprised of corporate activities of Power Financial and the results of Wealthsimple, Portag3 and Portag3 II. This column also includes consolidation elimination entries.

Revenues and assets are attributed to geographic areas based on the point of origin of revenues and the location of assets.

The contribution to earnings of each segment includes the share of net earnings resulting from the investments that Lifeco and IGM have in each other as well as certain consolidation adjustments.

NOTE 34 Segmented Information (continued)

CONSOLIDATED NET EARNINGS

For the year ended December 31, 2019	Lifeco [1]	IGM [2]	Pargesa	Corporate	Total
Revenues					
Total net premiums	24,510	–	–	(21)	24,489
Net investment income	13,107	169	–	(29)	13,247
Fee income	7,081	3,051	–	(66)	10,066
Total revenues	44,698	3,220	–	(116)	47,802
Expenses					
Total paid or credited to policyholders	33,091	–	–	–	33,091
Commissions	2,429	1,101	–	(50)	3,480
Operating and administrative expenses	6,013	1,055	–	169	7,237
Financing charges	285	108	–	42	435
Total expenses	41,818	2,264	–	161	44,243
Earnings before investments in jointly controlled corporations and associates, and income taxes	2,880	956	–	(277)	3,559
Share of earnings of investments in jointly controlled corporations and associates	–	13	193	5	211
Earnings before income taxes	2,880	969	193	(272)	3,770
Income taxes	373	220	–	8	601
Net earnings	2,507	749	193	(280)	3,169
Attributable to					
Non-controlling interests	928	295	–	(157)	1,066
Perpetual preferred shareholders	–	–	–	139	139
Common shareholders	1,579	454	193	(262)	1,964
	2,507	749	193	(280)	3,169

[1] Includes the loss on the reinsurance transaction with Protective Life of $247 million ($199 million after tax) (Note 3) and the impact of the $199 million decrease in the deferred income tax asset (Note 17).

[2] Results reported by IGM include an adjustment for IFRS 9 related to the classification of mortgage loans. As the Corporation has not yet adopted IFRS 9, this impact has been adjusted by the Corporation on consolidation and included in "Corporate".

TOTAL ASSETS AND LIABILITIES

December 31, 2019	Lifeco	IGM [2]	Pargesa	Corporate	Total
Investments and cash and cash equivalents	168,229	7,984	–	1,307	177,520
Investments in jointly controlled corporations and associates	53	857	3,954	38	4,902
Other assets	40,974	1,472	–	400	42,846
Goodwill and intangible assets	10,844	4,067	–	171	15,082
Investments on account of segregated fund policyholders	231,022	–	–	–	231,022
Total assets [1]	451,122	14,380	3,954	1,916	471,372
Total liabilities	425,624	10,892	–	1,144	437,660

[1] Total assets of Lifeco and IGM operating segments include the allocation of goodwill and certain consolidation adjustments.

[2] Assets reported by IGM include an adjustment for IFRS 9 related to the classification of mortgage loans. As the Corporation has not yet adopted IFRS 9, this impact has been adjusted by the Corporation on consolidation and included in "Corporate".

TOTAL ASSETS AND TOTAL REVENUES BY GEOGRAPHIC LOCATION

December 31, 2019	Canada	United States	Europe	Total
Investments and cash and cash equivalents	89,310	32,875	55,335	177,520
Investments in jointly controlled corporations and associates	706	194	4,002	4,902
Other assets	5,814	19,423	17,609	42,846
Goodwill and intangible assets	10,195	1,990	2,897	15,082
Investments on account of segregated fund policyholders	85,612	31,433	113,977	231,022
Total assets	191,637	85,915	193,820	471,372
Total revenues	24,279	(2,708)	26,231	47,802

NOTE 34 Segmented Information (continued)

CONSOLIDATED NET EARNINGS

For the year ended December 31, 2018	Lifeco	IGM [1]	Pargesa	Corporate	Total
Revenues					
Total net premiums	35,461	–	–	(21)	35,440
Net investment income	2,752	183	–	(113)	2,822
Fee income	5,819	3,037	–	(93)	8,763
Total revenues	44,032	3,220	–	(227)	47,025
Expenses					
Total paid or credited to policyholders	32,068	–	–	–	32,068
Commissions	2,474	1,099	–	(61)	3,512
Operating and administrative expenses	5,807	1,043	–	147	6,997
Financing charges	221	121	–	18	360
Total expenses	40,570	2,263	–	104	42,937
Earnings before investments in jointly controlled corporations and associates, and income taxes	3,462	957	–	(331)	4,088
Share of earnings of investments in jointly controlled corporations and associates	–	29	57	8	94
Earnings before income taxes	3,462	986	57	(323)	4,182
Income taxes	387	210	–	5	602
Net earnings	3,075	776	57	(328)	3,580
Attributable to					
Non-controlling interests	1,074	330	–	(207)	1,197
Perpetual preferred shareholders	–	–	–	138	138
Common shareholders	2,001	446	57	(259)	2,245
	3,075	776	57	(328)	3,580

[1] Results reported by IGM include an adjustment for IFRS 9 related to the classification of mortgage loans. As the Corporation has not yet adopted IFRS 9, this impact has been adjusted by the Corporation on consolidation and included in "Corporate".

TOTAL ASSETS AND LIABILITIES

December 31, 2018	Lifeco	IGM [2]	Pargesa	Corporate	Total
Investments and cash and cash equivalents	177,013	8,639	–	1,151	186,803
Assets held for sale	897	–	–	–	897
Investments in jointly controlled corporations and associates	8	683	3,291	27	4,009
Other assets	25,941	1,259	–	125	27,325
Goodwill and intangible assets	10,984	4,028	–	163	15,175
Investments on account of segregated fund policyholders	209,527	–	–	–	209,527
Investments on account of segregated fund policyholders held for sale	3,319	–	–	–	3,319
Total assets [1]	427,689	14,609	3,291	1,466	447,055
Total liabilities	400,291	11,007	–	808	412,106

[1] Total assets of Lifeco and IGM operating segments include the allocation of goodwill and certain consolidation adjustments.

[2] Assets reported by IGM include an adjustment for IFRS 9 related to the classification of mortgage loans. As the Corporation has not yet adopted IFRS 9, this impact has been adjusted by the Corporation on consolidation and included in "Corporate".

TOTAL ASSETS AND TOTAL REVENUES BY GEOGRAPHIC LOCATION

December 31, 2018	Canada	United States	Europe	Total
Investments and cash and cash equivalents	84,522	47,522	54,759	186,803
Assets held for sale	–	–	897	897
Investments in jointly controlled corporations and associates	716	–	3,293	4,009
Other assets	4,486	4,497	18,342	27,325
Goodwill and intangible assets	10,102	2,130	2,943	15,175
Investments on account of segregated fund policyholders	76,633	31,816	101,078	209,527
Investments on account of segregated fund policyholders held for sale	–	–	3,319	3,319
Total assets	176,459	85,965	184,631	447,055
Total revenues	19,155	7,802	20,068	47,025

INDEPENDENT AUDITOR'S REPORT

To the Shareholders of Power Financial Corporation

Opinion

We have audited the consolidated financial statements of Power Financial Corporation (the "Corporation"), which comprise the consolidated balance sheets as at December 31, 2019 and 2018, and the consolidated statements of earnings, comprehensive income, changes in equity and cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies (collectively referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Corporation as at December 31, 2019 and 2018, and its financial performance and its cash flows for the years then ended in accordance with International Financial Reporting Standards ("IFRS").

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards ("Canadian GAAS"). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Corporation in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Information

Management is responsible for the other information. The other information comprises of Management's Discussion and Analysis.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon. In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

We obtained Management's Discussion and Analysis prior to the date of this auditor's report. If, based on the work we have performed on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact in this auditor's report. We have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with IFRS, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Corporation's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Corporation or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Corporation's financial reporting process.

INDEPENDENT AUDITOR'S REPORT (continued)

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian GAAS will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian GAAS, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Corporation's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Corporation's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Corporation to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Corporation to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

The engagement partner on the audit resulting in this independent auditor's report is Benoit B. Patry.

Signed,
Deloitte LLP [1]

[1] CPA auditor, CA, public accountancy permit No. A110092

March 18, 2020

Montréal, Québec